# STIC Search Report
## EIC 1700

STIC Database Tracking Number: 101056

| | |
|---|---|
| **TO: Eisa Elhilo**<br>**Location: CP3 9D34**<br>**Art Unit : 1751**<br>**August 14, 2003**<br><br>**Case Serial Number: 10/052321** | **From: Kathleen Fuller**<br>**Location: EIC 1700**<br>**CP3/4 3D62**<br>**Phone: 308-4290**<br><br>**Kathleen.Fuller@uspto.gov** |

## Search Notes

# STIC Search Results Feedback Form

## EIC17000

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact*:**

**Kathleen Fuller, EIC 1700 Team Leader**
**308-4290, CP3/4-3D62**

## Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

*Types of relevant prior art found:*

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

**Comments:**

**Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62**

=> file reg
FILE 'REGISTRY' ENTERED AT 11:24:34 ON 14 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.


Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9
DICTIONARY FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

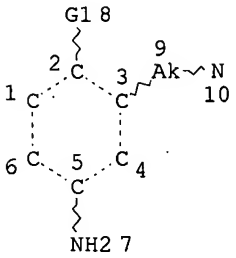
Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> file hcaplus
FILE 'HCAPLUS' ENTERED AT 11:24:39 ON 14 AUG 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.


FILE COVERS 1907 - 14 Aug 2003 VOL 139 ISS 7
FILE LAST UPDATED: 13 Aug 2003 (20030813/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que
L13 SCR 1568
L18 STR

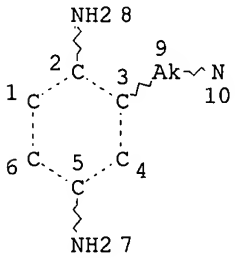



623 structures from query

VAR G1=OH/NH2
NODE ATTRIBUTES:
NSPEC IS RC AT 10
CONNECT IS E2 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L21 623 SEA FILE=REGISTRY SSS FUL L18 AND L13
L22 STR




305 structures from subset

NODE ATTRIBUTES:
NSPEC IS RC AT 10
CONNECT IS E2 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L24 305 SEA FILE=REGISTRY SUB=L21 SSS FUL L22
L25 87 SEA FILE=HCAPLUS ABB=ON L24
L26 32 SEA FILE=HCAPLUS ABB=ON L25 AND (HAIR OR KERAT?)

32 CA references

=> sel hit rn l26 1-32
E1 THROUGH E243 ASSIGNED

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

=> d l26 all fhitstr 1-32

L26 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:300263 HCAPLUS
DN 138:308942
TI Substituted 2-aminoalkyl-1,4-diaminobenzene compounds and oxidation dye precursor compositions containing them
IN Chassot, Laurent; Braun, Hans-Juergen
PA Switz.
SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 692,971.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K007-13
NCL 008405000; 008406000; 008415000
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 2003070241 | A1 | 20030417 | US 2002-146264 | 20020515 |
| | US 6436152 | B1 | 20020820 | US 2000-692971 | 20001020 |
| | US 2002189033 | A1 | 20021219 | US 2002-124149 | 20020417 |
| PRAI | DE 1999-19961272 | A | 19991218 | | |
| | US 2000-692971 | A2 | 20001020 | | |

OS MARPAT 138:308942
AB The oxidn. **hair** dye precursor compn., in the form of a soln., cream, emulsion or gel, contains (i) 0.005-20.0% by wt. of at least one coupler compd., and (ii) 0.005-20.0% by wt. of at least one developer compd., that includes at least one substituted 2-aminoalkyl-1,4-diaminobenzene compd. The compn. further comprises at least one direct dye. Prepn. of substituted 2-aminoalkyl-1,4-diaminobenzene compds. is also described. For example, 1,4-diamino-2-(1-butylaminoethyl)benzene hydrochloride developer was prepd. and formulated into an oxidn. **hair** dye precursor compn. with couplers 1,3-dihydroxybenzene, 1,3-diamino-4-(2-hydroxyethoxy)-benzene sulfate, 5-amino-2-methyl-phenol, or 1-naphthol to give bright light blond, gray-blue, purple, or gray-rose died **hair** colors, resp.
ST aminoalkyl diaminobenzene prepn **hair** dye developer; oxidative **hair** dye precursor coupler diaminobenzene developer
IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)
IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 533-31-3, 3,4-Methylenedioxyphenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6369-59-1, 2,5-Diaminotoluene sulfate 26455-21-0, N-(3-Dimethylamino)phenylurea 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 71005-35-1 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 84540-50-1, 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 94158-14-2 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 159621-77-9 164919-03-3 217311-43-8, 2,4-Diamino-5-fluorotoluene sulfate 282542-32-9 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 364343-79-3

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT **350481-07-1P 350481-08-2P 350481-09-3P**
**350481-10-6P 350481-11-7P 350481-13-9P**
**350481-15-1P 350481-16-2P 350481-17-3P**
**350481-18-4P 350481-19-5P 350481-20-8P**
**350481-21-9P 350481-22-0P 350481-23-1P**
**350481-24-2P 350481-25-3P 350481-26-4P**
**350481-27-5P 350481-29-7P 350481-30-0P**
**350481-31-1P 350481-32-2P 350481-36-6P**
**350481-40-2P 350481-41-3P 350481-43-5P**
**350481-44-6P 350481-45-7P 350481-46-8P**
**350481-47-9P 350481-48-0P 350481-50-4P**
**350481-51-5P 350481-52-6P 350481-53-7P**
**350481-54-8P 350481-56-0P 350481-57-1P**
**350481-58-2P 350481-59-3P 350481-61-7P**
**350481-62-8P 350481-63-9P 350481-64-0P**
**350481-65-1P 350481-66-2P 350481-67-3P**
**350481-69-5P 350481-70-8P 350481-71-9P**
**350481-72-0P 350481-73-1P 350481-74-2P**
**350481-75-3P 350481-76-4P 350481-77-5P**
**350481-78-6P 350481-79-7P 350481-80-0P**
**350481-81-1P 350481-82-2P 350481-84-4P**
**350481-85-5P 350481-87-7P 350481-88-8P**
**350481-89-9P 350481-90-2P 350481-91-3P**
**350481-92-4P 350481-93-5P 350481-94-6P**
**350481-95-7P 350481-96-8P 350481-99-1P**
**350482-00-7P** 510774-40-0P **510774-41-1P**
**510774-42-2P 510774-43-3P 510774-44-4P**
**510774-45-5P 510774-46-6P 510774-47-7P**
**510774-48-8P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

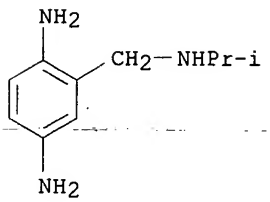
IT 56-40-6, Glycine, reactions 62-53-3, Aniline, reactions 63-68-3, L-Methionine, reactions 68-12-2, Dimethylformamide, reactions 70-47-3, Asparagine, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 96-20-8, 2-Amino-1-butanol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, 2-Thiophenecarboxaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9, 4-Amino-N,N-dimethylaniline 100-10-7, 4-Dimethylaminobenzaldehyde 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine 107-15-3, Ethylenediamine, reactions 108-00-9, 2-Dimethylaminoethylamine 109-01-3 109-55-7, 3-Dimethylaminopropylamine 109-83-1, 2-Methylaminoethanol 109-85-3, 2-Methoxyethylamine 110-58-7, Pentylamine 110-73-6, 2-Ethylaminoethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 141-43-5,

Ethanolamine, reactions 147-85-3, L-Proline, reactions 364-73-8, 1-Bromo-4-fluoro-3-nitrobenzene 364-74-9 364-76-1 437-83-2, 3-Fluoro-2-methoxyaniline 446-35-5 455-14-1, 4-Trifluoromethylaniline 498-62-4, 3-Thiophenecarboxaldehyde 498-63-5, Prolinol 500-22-1, Pyridine-3-carboxaldehyde 525-72-4, 1-Methyl-6,7-dihydroxy-1,2,3,4-tetrahydroisoquinoline 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 587-04-2, 3-Chlorobenzaldehyde 590-86-3 616-30-8 617-89-0, Furfurylamine 765-30-0, Cyclopropylamine 872-85-5, Pyridine-4-carboxaldehyde 1001-53-2, N-Acetylethylenediamine 1117-97-1, O,N-Dimethylhydroxylamine 1121-60-4, Pyridin-2-carboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexanecarboxaldehyde 2454-37-7, 3-(1-Hydroxyethyl)aniline 2516-47-4, Aminomethylcyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0, 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6, 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0, Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6, 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxyaniline 6859-99-0, 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitrobenzoic acid 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol 14268-66-7, 3,4-Methylenedioxyaniline 24424-99-5, Di(tert-butyl dicarbonate) 25739-59-7 35303-76-5, 4-(2-Aminoethyl)benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidinobenzaldehyde 68621-88-5 71026-66-9 244104-65-2 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8 510774-39-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 325953-36-4P 350481-97-9P 350481-98-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT **350481-07-1P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

RN 350481-07-1 HCAPLUS
CN 1,4-Benzenediamine, 2-[[(1-methylethyl)amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)

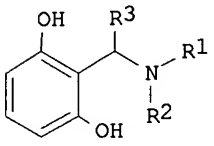



●x HCl

L26 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:238180 HCAPLUS
DN 138:271380
TI Preparation of 2-substituted resorcinol derivatives containing coloring agent as well as new resorcinol derivatives
PA Wella AG, Germany
SO Ger. Gebrauchsmusterschrift, 48 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07C215-52
ICS A61K007-13; C07D213-36; C07D307-00; C07D207-04
CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 41, 62
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 20217957 | U1 | 20030327 | DE 2002-20217957 | 20021120 |

PRAI DE 2002-20217957 20021120
OS MARPAT 138:271380
GI



I

AB A means of the coloring **keratin** fibers based on a developer/generator substance coupling agent combination, is characterized by the fact that it contains at least one resorcinol deriv. I [R1, R2 = H, C1-6-alkyl, C2-6-alkenyl, acetyl, C1-4-alkoxy, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, C1-4-alkoxy-C1-4-alkyl, C1-4-hydroxyalkoxy-C1-4-alkyl, C1-4-aminoalkyl, C1-4-(dimethylamino)alkyl, C1-4-(acetylamino)alkyl, C1-4-[(tert-butoxycarbonyl)amino]alkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-(aminocarbonyl)alkyl, pyridyl Me, furfuryl, tetrahydrofurfuryl, methyltetrahydrofurfuryl, (un)substituted pyridyl, Ph, pyrazolyl, piperidinyl, morpholinyl, piperazinyl, pyrrolidinyl; R3 = H, C1-6-alkyl] or its physiol. compatible water-sol. salts. Thus, I [R1 = CH2CH2OMe, R2 = R3 = H] was prepd. from resorcinol, via O-alkylation with ClCH2CH2OMe, Vilsmeier formylation, O-deprotection and reductive amination with MeOCH2CH2NH2. A **hair** dye was prepd. contg. I [R1 = CH2CH2OMe, R2 = R3 = H] and 2,5-diaminotoluene sulfate (developing agent) giving a medium blond color.
ST resorcinol deriv prepn coloring agent **keratin** fiber; aniline deriv developer coupling agent dye component
IT **Hair** preparations
(dyes; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)
IT Fibers
RL: NUU (Other use, unclassified); USES (Uses)

(**keratin**, coloring agents for; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive amination by, of dihydroxybenzaldehyde; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT Phenols, preparation
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 627-42-9, 1-Chloro-2-methoxyethane
RL: RCT (Reactant); RACT (Reactant or reagent)
(O-alkylation by, of resorcinol; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 108-46-3, Resorcinol, biological studies 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-95-2, 5-Amino-2-methylphenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 26455-21-0, N-[3-(Dimethylamino)phenyl]urea 49647-58-7, 2,4,5,6-Tetraaminopyrimidine sulfate 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 83763-48-8, 2-Amino-4-[(2-hydroxyethyl)amino]anisole sulfate 84540-50-1, 3-Amino-2-chloro-6-methylphenol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(coupling substance for coloring agent contg. resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-86-3, 2,4-Diaminophenol 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 123-31-9, 1,4-Dihydroxybenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triaminopyrimidin-4-(1H)-one 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6369-59-1, 2,5-Diaminotoluene sulfate 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17272-83-2, N-Benzylbenzene-1,4-diamine 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71411-90-0 73793-80-3, 1,4-Diamino-2-[hydroxymethyl]benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 93841-25-9, (2,5-Diaminophenyl)ethanol sulfate 97902-52-8,

1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 131311-66-5, 4,5-Diamino-1-benzyl-1H-pyrazole 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole sulfate 157469-53-9, 4,5-Diamino-1-[(4-methoxyphenyl)methyl]-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 4,5-Diamino-1-[(4-chlorophenyl)methyl]-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 181473-60-9, N-[(Furan-2-yl)methyl]benzene-1,4-diamine 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(thien-3-yl)benzene 246244-41-7, 1,4-Diamino-2-(thien-2-yl)benzene 251114-07-5, 2,3',5-Triamino-1,1'-biphenyl 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene **325952-88-3** 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 400058-21-1, 4,5-Diamino-1-pentyl-1H-pyrazole 402559-72-2, N-[(Thien-3-yl)methyl]benzene-1,4-diamine 402559-73-3, N-[(Furan-3-yl)methyl]benzene-1,4-diamine 402559-76-6, N-[(Thien-2-yl)methyl]benzene-1,4-diamine 402825-68-7, N-[4-(Pyrrolidin-1-yl)benzyl]benzene-1,4-diamine 503046-72-8, 4-(2,5-Diaminophenyl)-2-[(diethylamino)methyl]thiophene 503046-73-9, 2-Chloro-3-(2,5-diaminophenyl)thiophene 503046-74-0, 2,5-Diamino-4'-(1-methylethyl)-1,1'-biphenyl **503046-75-1**, 1,4-Diamino-2-[(phenylamino)methyl]benzene **503046-76-2** 503046-96-6 503047-00-5, 2,5-Diamino-4'-hydroxy-1,1'-biphenyl 503047-01-6, 2,5-Diamino-2'-(trifluoromethyl)-1,1'-biphenyl 503047-02-7, 2,4',5-Triamino-1,1'-biphenyl

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(developer substance for coloring agent contg. resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8, 6-Chloro-2-(ethylamino)-4-nitrophenol

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(direct dye coupling substance for resorcinol derivs. contg. coloring agent; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 94564-77-9P 503046-49-9P 503046-50-2P 503046-51-3P 503046-52-4P 503046-53-5P, 1-(2,6-Dihydroxybenzyl)piperidin-4-ol 503046-54-6P 503046-55-7P 503046-56-8P 503046-57-9P 503046-58-0P 503046-59-1P 503046-60-4P 503046-61-5P 503046-62-6P 503046-63-7P 503046-64-8P 503046-65-9P 503046-66-0P 503046-67-1P 503046-68-2P 503046-69-3P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and color of dyes contg.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 503046-71-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deprotection of; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 503046-70-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and formylation of; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 387-46-2P, 2,6-Dihydroxybenzaldehyde
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reductive amination of, with amines and aniline derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

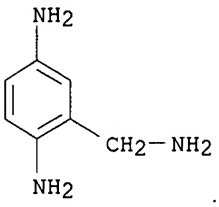
IT 503047-03-8P
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 94564-81-5P, 1,3-Dihydroxy-2-(aminomethyl)benzene 503046-77-3P, N-[2-(2,6-Dihydroxybenzylamino)ethyl]acetamide 503046-78-4P, 1,3-Dihydroxy-2-[(methylamino)methyl]benzene 503046-79-5P, 2-[(2,6-Dihydroxybenzyl)amino]ethanol 503046-80-8P, 1-[2,6-Dihydroxybenzyl]pyridin-3-ol 503046-81-9P, [1-(2,6-Dihydroxybenzyl)pyrrolidin-2-yl]methanol 503046-82-0P, 1-(2,6-Dihydroxybenzyl)piperidin-3-ol 503046-83-1P 503046-84-2P, 2-(2,6-Dihydroxybenzylamino)propan-1-ol 503046-85-3P 503046-86-4P 503046-87-5P 503046-88-6P 503046-89-7P 503046-90-0P 503046-91-1P, 1,3-Dihydroxy-2-[(phenylamino)methyl]benzene 503046-93-3P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 90-04-0, 1-Amino-2-methoxybenzene 99-57-0, 2-Amino-4-nitrophenol 104-94-9, 1-Amino-4-methoxybenzene 107-11-9, Allylamine 107-15-3, (2-Aminoethyl)amine, reactions 109-85-3, (2-Methoxyethyl)amine 110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 123-75-1, Pyrrolidine, reactions 462-08-8, 3-Aminopyridine 504-29-0, 2-Aminopyridine 536-90-3, 1-Amino-3-methoxybenzene 617-89-0, [(2-Furyl)methyl]amine 929-06-6, [2-(2-Hydroxyethoxy)ethyl]amine 2735-04-8, 1-Amino-2,4-dimethoxybenzene 5382-16-1, 4-Hydroxypiperidine 7175-81-7, (S)-[(Tetrahydrofuran-2-yl)methyl]amine 57260-73-8, N-(2-Aminoethyl)carbamic acid 1,1-dimethylethyl ester 71026-66-9, N-(4-Aminophenyl)carbamic acid 1,1-dimethylethyl ester
RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive amination of dihydroxybenzaldehyde by; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(developer substance for coloring agent contg. resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:170369 HCAPLUS
DN 138:206431
TI Preparation of 3-aminophenols as oxidative dyeing agents of human **hair**
IN Pasquier, Cecile; Wyss, Patrick; Braun, Hans-Juergen
PA Wella AG, Germany
SO Ger. Offen., 14 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07D333-06
ICS C07D333-20; C07D307-52; C07D277-04; A61K007-13
CC 40-6 (Textiles and Fibers)
Section cross-reference(s): 25, 41
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 10141723 | A1 | 20030306 | DE 2001-10141723 | 20010825 |
| | WO 2003018571 | A1 | 20030306 | WO 2002-EP4495 | 20020424 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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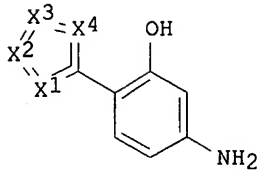
OS MARPAT 138:206431
GI



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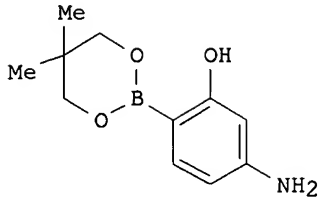
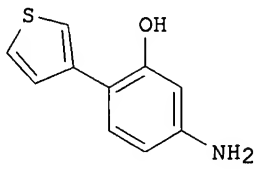


II



III

AB Title compds. I [X1, X2, X3 = S, N, O, etc., with provisos] were prepd. For example, aryl coupling of dioxaborinane II, e.g., prepd. from 3-aminophenol in 4-steps, and 3-bromothiophene, followed by HCL mediated phenol deprotection afforded diaminobenzene III hydrochloride in 23% yield. In coloration studies of bleached **hair**, 9-examples of compds. I in combination with 4-dyeing developers resulted in a range of **hair** coloring, e.g., a prepn. of diaminobenzene III hydrochloride and 2,5-diaminotoluene sulfate produced a violet color.

ST prepn aminophenol oxidative dye agent human **hair keratin**

IT **Hair** preparations
(dyes; prepn. of aminophenols as oxidative dyeing agents of human **hair**.)

IT Human
(prepn. of aminophenols as oxidative dyeing agents of human **hair**.)

IT **Keratins**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human **hair**.)

IT 500354-21-2P, 3-Ethoxymethoxyphenylamine 500354-22-3P 500354-23-4P 500354-24-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of aminophenols as oxidative dyeing agents of human **hair**.)

IT 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human **hair**.)

IT 83-56-7, 1,5-Naphthalenediol 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolindione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9,

4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, reactions 108-45-2, 1,3-Diaminobenzene, reactions 108-46-3, 1,3-Dihydroxybenzene, reactions 123-30-8, 4-Aminophenol 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Naphthalenediol 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphtholacetate 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro-[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81329-90-0, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxol 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisol 83763-48-8 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 93841-25-9 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 94158-14-2 97902-52-8,

1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di-[(2-Hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 131657-78-8, 6-Chloro-2-ethylamino-4-nitrophenol 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazol 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazol 155601-30-2 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazol 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazol 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 217311-43-8, 2-4-Diamino-5-fluorotoluene sulfate 244104-61-8, 1,4-Diamino-2-(thiophen-2-yl)benzene 246244-41-7, 1,4-Diamino-2-(thiophen-3-yl)benzene 282542-32-9, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

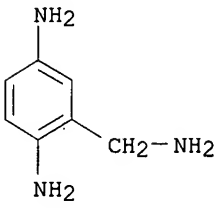
IT 500353-66-2P, 5-Amino-2-(3-thienyl)phenol 500353-67-3P, 5-Amino-2-(3-furyl)phenol 500353-68-4P, 5-Amino-2-(pyrrol-3-yl)phenol 500353-69-5P, 5-Amino-2-(1-methyl-1H-pyrrol-3-yl)phenol 500353-70-8P, 5-Amino-2-(1,3-thiazol-2-yl)phenol 500353-71-9P, 5-Amino-2-(1,3-thiazol-5-yl)phenol 500353-72-0P, 5-Amino-2-(2-thienyl)phenol 500353-73-1P, 5-Amino-2-(2-furyl)phenol 500353-74-2P, 5-Amino-2-(pyrrol-2-yl)phenol 500353-75-3P, 5-Amino-2-(1-methyl-1H-pyrrol-2-yl)phenol 500353-76-4P, 5-Amino-2-(2-chloro-3-thienyl)phenol 500353-77-5P, 5-Amino-2-(2-methyl-3-thienyl)phenol 500353-78-6P, 5-Amino-2-(2-nitro-3-thienyl)phenol 500353-79-7P, 5-Amino-2-(2-amino-3-thienyl)phenol 500353-80-0P, 5-Amino-2-(2-acetyl-3-thienyl)phenol 500353-81-1P, 5-Amino-2-(2-formyl-3-thienyl)phenol 500353-82-2P, 5-Amino-2-(4-chloro-3-thienyl)phenol 500353-83-3P, 5-Amino-2-(4-methyl-3-thienyl)phenol 500353-84-4P, 5-Amino-2-(4-nitro-3-thienyl)phenol 500353-85-5P, 5-Amino-2-(4-amino-3-thienyl)phenol 500353-86-6P, 5-Amino-2-(4-acetyl-3-thienyl)phenol 500353-87-7P, 5-Amino-2-(4-formyl-3-thienyl)phenol 500353-88-8P, 5-Amino-2-(5-chloro-3-thienyl)phenol 500353-89-9P, 5-Amino-2-(5-methyl-3-

thienyl)phenol 500353-90-2P, 5-Amino-2-(5-nitro-3-thienyl)phenol 500353-91-3P, 5-Amino-2-(5-acetyl-3-thienyl)phenol 500353-92-4P, 5-Amino-2-(5-amino-3-thienyl)phenol 500353-93-5P, 5-Amino-2-(5-formyl-3-thienyl)phenol 500353-94-6P, 5-Amino-2-(5-formyl-3-furyl)phenol 500353-95-7P, 5-Amino-2-(3-chloro-2-thienyl)phenol 500353-96-8P, 5-Amino-2-(3-methyl-2-thienyl)phenol 500353-97-9P, 5-Amino-2-(3-nitro-2-thienyl)phenol 500353-98-0P, 5-Amino-2-(3-amino-2-thienyl)phenol 500353-99-1P, 5-Amino-2-(3-acetyl-2-thienyl)phenol 500354-00-7P, 5-Amino-2-(3-formyl-2-thienyl)phenol 500354-01-8P, 5-Amino-2-(4-chloro-2-thienyl)phenol 500354-02-9P, 5-Amino-2-(4-methyl-2-thienyl)phenol 500354-03-0P, 5-Amino-2-(4-nitro-2-thienyl)phenol 500354-04-1P, 5-Amino-2-(4-amino-2-thienyl)phenol 500354-05-2P, 5-Amino-2-(4-acetyl-2-thienyl)phenol 500354-07-4P, 5-Amino-2-(4-formyl-2-thienyl)phenol 500354-08-5P, 5-Amino-2-(5-chloro-2-thienyl)phenol 500354-09-6P, 5-Amino-2-(5-methyl-2-thienyl)phenol 500354-10-9P, 5-Amino-2-(5-nitro-2-thienyl)phenol 500354-11-0P, 5-Amino-2-(5-amino-2-thienyl)phenol 500354-12-1P, 5-Amino-2-(5-acetyl-2-thienyl)phenol 500354-13-2P, 5-Amino-2-(5-formyl-2-thienyl)phenol 500354-14-3P, 5-Amino-2-(5-formyl-2-furyl)phenol 500354-15-4P, 5-Amino-2-(5-nitro-1,3-thiazol-2-yl)phenol 500354-16-5P, 5-Amino-2-(5-amino-1,3-thiazol-2-yl)phenol 500354-17-6P, 5-Amino-2-(2-nitro-1,3-thiazol-5-yl)phenol 500354-18-7P, 5-Amino-2-(2-amino-1,3-thiazol-5-yl)phenol 500354-19-8P, 5-Amino-2-(3,5-dimethyl-1H-pyrazol-4-yl)phenol 500354-20-1P, 5-Amino-2-(5-nitro-4H-1,2,4-triazol-3-yl)phenol 500354-25-6P, 5-Amino-2-(3-thienyl)phenol hydrochloride 500354-26-7P, 5-Amino-2-(3-furyl)phenol hydrochloride 500354-27-8P, 5-Amino-2-(1,3-thiazol-2-yl)phenol hydrochloride 500354-28-9P, 5-Amino-2-(2-thienyl)phenol hydrochloride 500354-29-0P, 5-Amino-2-(4-methyl-3-thienyl)phenol hydrochloride 500354-30-3P, 5-Amino-2-(2-chloro-3-thienyl)phenol hydrochloride 500354-31-4P, 5-Amino-2-(5-chloro-2-thienyl)phenol hydrochloride 500354-32-5P, 5-Amino-2-(5-acetyl-2-thienyl)phenol hydrochloride 500354-33-6P, 5-Amino-2-(5-formyl-2-furyl)phenol hydrochloride
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

IT 872-31-1, 3-Bromothiophene 1003-09-4, 2-Bromothiophene 2873-18-9, 2-Bromo-5-chlorothiophene 3034-53-5, 2-Bromo-1,3-thiazol 3188-13-4, Chloromethyl ethyl ether 4701-17-1, 2-Bromo-5-formylthiophene 5370-25-2, 2-Bromo-5-acetylthiophene 22037-28-1, 3-Bromofuran 24424-99-5, Di-tert-butyldicarbonate 30318-99-1, 3-Bromo-4-methylthiophene 40032-73-3, 3-Bromo-2-chlorothiophene 201733-56-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:904285 HCAPLUS
DN 137:375003
TI Synthesis of 1,3-dihydroxybenzene derivatives and their use in oxidative **hair** dyes
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella Ag, Germany
SO Ger. Offen., 14 pp.
CODEN: GWXXBX
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LA German
IC ICM C07D333-06
ICS C07D333-12; C07D307-38; C07F007-08; A61K007-13; C07D207-325
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 27
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| PI | DE 10125453 | A1 | 20021128 | DE 2001-10125453 | 20010525 |
| | WO 2002096901 | A2 | 20021205 | WO 2002-EP850 | 20020128 |
| | WO 2002096901 | A3 | 20030313 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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|---|---|---|---|---|---|
| | BR 2002005398 | A | 20030701 | BR 2002-5398 | 20020128 |
| PRAI | DE 2001-10125453 | A | 20010525 | | |
| | DE 2001-20108704 | U | 20010525 | | |
| | WO 2002-EP850 | W | 20020128 | | |

OS MARPAT 137:375003
AB The invention concerns 1,3-dihydroxybenzene derivs., their synthesis and application as coupling agents in oxidative **hair** dyes. Thus 1,3-dihydroxy-4-(thiophene-2yl)-benzene was synthesized in a three step reaction and used in a **hair** dye compn. as a 1.25 mmol ingredient; other components were: 1,4-diaminobenzene 1.25 mmol; potassium oleate (8% soln.) 1.0 g; ammonia (22% soln.) 1.0 g; ethanol 1.0g; ascorbic acid 0.3 g; water to 100 g.
ST dihydroxybenzene deriv oxidative **hair** dye
IT **Hair** preparations
(dyes, oxidative; synthesis of 1,3-dihydroxybenzene derivs. and their

use in oxidative **hair** dyes)

IT 72287-26-4, Di-chloro(1,1'-bis(diphenyl-phosphino)ferrocene)palladium
RL: CAT (Catalyst use); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative **hair** dyes)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxy benzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]-acetamide 7469-77-4, 2-Methyl-1-naphthol 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro,1-4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 75513-65-4, 1,3-Diamino-4-(2,3-dihydrox-ypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0,

4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridin e 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropyla-minoaniline 109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy)-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 475391-60-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative **hair** dyes)

IT 365548-62-5P 365548-63-6P 365548-64-7P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative **hair** dyes)

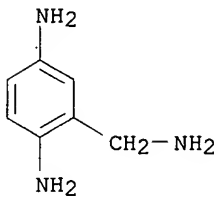
IT 110-87-2, 3,4-Dihydro-2H-pyran 1003-09-4, 2-Bromothiophene 6626-15-9, 4-Bromo-1,3-dihydroxybenzene 13195-50-1, 2-Bromo-5-nitrothiophene 14282-76-9, 2-Bromo-3-methylthiophene 73183-34-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative **hair** dyes)

IT 31963-61-8P 365548-74-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative **hair** dyes)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative **hair** dyes)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:904284 HCAPLUS
DN 137:375002
TI Synthesis of N-benzyl-m-phenylenediamine derivatives and their use in oxidative **hair** dyes
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella Ag, Germany
SO Ger. Offen., 18 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07C217-82
ICS C07C233-18; C07C215-00; C07C311-00; C07C317-00; C07C323-00; C07F007-10; A61K007-13; C07D231-38; D06P001-642
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 10125451 | A1 | 20021128 | DE 2001-10125451 | 20010525 |
| | WO 2002096854 | A1 | 20021205 | WO 2002-EP1087 | 20020202 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | BR 2002005434 | A | 20030624 | BR 2002-5434 | 20020202 |
| PRAI | DE 2001-10125451 | A | 20010525 | | |
| | WO 2002-EP1087 | W | 20020202 | | |

OS MARPAT 137:375002
AB The invention concerns N-benzyl-m-phenylenediamine derivs., their synthesis and application as coupling agents in oxidative **hair**

dyes. Thus 2-[4-amino-2-benzylamino-phenoxy]-ethanol hydrochloride was synthesized in a two step reaction starting from 2-(2,4-diaminophenoxy)ethanol and di-tert.-butyldicarbonate; the product was reacted with benzaldehyde. A **hair** dye compn. contained: 2-[4-amino-2-benzylamino-phenoxy]-ethanol hydrochloride 1.25 mmol; 1,4-diaminobenzene 1.25 mmol; potassium oleate (8% soln.) 1.0 g; ammonia (22% soln.) 1.0 g; ethanol 1.0g; ascorbic acid 0.3 g; water to 100 g.

ST benzyl phenylene diamine deriv oxidative **hair** dye

IT **Hair** preparations
(dyes, oxidative; synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative **hair** dyes)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-73-3, 1,2,4-Benzenetriol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropyla-minoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 475490-37-0 475490-38-1 475490-39-2 475490-40-5 475490-41-6 475490-42-7 475490-43-8 475490-44-9 475490-45-0 475490-46-1 475490-47-2 475490-48-3 475490-49-4 475490-50-7 475490-51-8 475490-52-9 475490-53-0 475490-54-1 475490-55-2 475490-56-3 475490-57-4 475490-58-5 475490-59-6 475490-60-9 475490-61-0 475490-62-1 475490-63-2 475490-64-3 475490-65-4 475490-66-5 475490-67-6 475490-68-7 475490-69-8 475490-70-1 475490-71-2 475490-72-3 475490-73-4 475490-74-5 475490-75-6 475490-76-7 475490-77-8 475490-78-9

475490-79-0 475490-80-3 475490-81-4 475490-82-5 475490-83-6
475490-84-7 475490-85-8 475490-86-9 475490-87-0 475490-88-1
475490-89-2 475490-90-5 475490-91-6 475490-92-7 475490-93-8
475490-94-9
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative **hair** dyes)

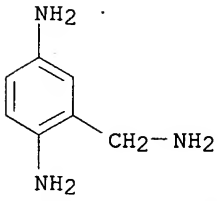
IT 475490-95-0P 475490-96-1P 475490-97-2P 475490-98-3P 475490-99-4P
475491-00-0P 475491-01-1P 475491-02-2P 475491-03-3P 475491-04-4P
475491-05-5P 475491-06-6P 475491-07-7P 475491-08-8P 475491-09-9P
475491-10-2P 475491-11-3P 475491-12-4P 475491-13-5P 475491-14-6P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative **hair** dyes)

IT 90-02-8, 2-Hydroxybenzaldehyde, reactions 100-10-7, 4-Dimethylaminobenzaldehyde 100-52-7, Benzaldehyde, reactions 100-83-4, 3-Hydroxybenzaldehyde 122-85-0, 4-Acetamidobenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-11-5, 4-Methoxybenzaldehyde, reactions 135-02-4, 2-Methoxybenzaldehyde 529-23-7, 2-Aminobenzaldehyde 555-16-8, 4-Nitrobenzaldehyde, reactions 619-66-9, 4-Formyl benzoic acid 1194-98-5, 2,5-Dihydroxybenzaldehyde 1709-44-0, 3-Aminobenzaldehyde 17354-79-9 22042-73-5 24424-99-5, Di-tert-butyldicarbonate 27913-86-6 58028-76-5 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 144072-30-0, (4-Formyl-phenyl)-carbamic acid tert-butylester 402826-41-9 402826-43-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative **hair** dyes)

IT 325953-48-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative **hair** dyes)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative **hair** dyes)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



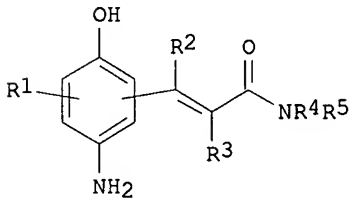

L26 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:777882 HCAPLUS
DN 137:296211
TI (1-Amino-4-hydroxyphenyl)acrylamide derivatives and oxidative **hair** dyes containing them

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella Aktiengesellschaft, Germany
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C07C237-20
ICS A61K007-13; D06P001-32; C07D295-18; C07D295-12; C07D231-38; C07D307-52; C07D211-46; C07D207-27; C07D213-75; C07D233-61; C07D307-22; C07D317-66; C07D207-08; C07D207-16; C07D211-42
CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 25, 27, 28, 62
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2002079144 | A1 | 20021010 | WO 2001-EP12126 | 20011019 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE 10115994 | A1 | 20021010 | DE 2001-10115994 | 20010330 |
| EP 1286953 | A1 | 20030305 | EP 2001-274059 | 20011019 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001011197 | A | 20030408 | BR 2001-11197 | 20011019 |
| PRAI DE 2001-10115994 | A | 20010330 | | |
| WO 2001-EP12126 | W | 20011019 | | |

OS MARPAT 137:296211
GI




I

AB The invention relates to aminohydroxyphenylacrylamide derivs. (I; R1 = H, halogen, alkyl, hydroxyalkyl, alkoxy; R2, R3 = H, alkyl; R4, R5 = H, alkyl, unsatd. alkyl, hydroxyalkyl, alkoxy, optionally substituted aminoalkyl, cyanoalkyl, carboxyalkyl, aminocarbonylalkyl, arom. group, heterocyclic group) or physiol. acceptable, water-sol. salts of I, and to oxidative **hair** dyes contg. I as developers. I provide **hair** dyes with very good fastness to light and washing. Examples were given in which 3-(5-amino-2-hydroxyphenyl)acrylamide derivs. were prepd. from 3-[5-(tert-butoxycarbonylamino)-2-(ethoxymethoxy)phenyl]acrylic acid and the appropriate amines or amine

derivs.
ST aminohydroxyphenylacrylamide deriv prodn developer component oxidative **hair** dye
IT **Hair** preparations
(dyes, oxidative; aminohydroxyphenylacrylamide deriv. developers for oxidative **hair** dyes)
IT 467466-23-5 467466-24-6 467466-25-7 467466-26-8 467466-27-9 467466-28-0 467466-29-1 467466-30-4
RL: TEM (Technical or engineered material use); USES (Uses)
(aminohydroxyphenylacrylamide deriv. developers for oxidative **hair** dyes)
IT 128-08-5, N-Bromosuccinimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(brominating agent; prodn. of aminohydroxyphenylacrylamide deriv. developers for oxidative **hair** dyes)
IT 14268-66-7, 3,4-Methylenedioxyaniline
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(couplers for oxidative **hair** dyes contg. aminohydroxyphenylacrylamide deriv. developers)
IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, uses 108-46-3, 1,3-Dihydroxybenzene, uses 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-(2-Hydroxyethylamino)phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-(2-Hydroxyethylamino)aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4, 2-(3-Hydroxyphenylamino)acetamide 7469-77-4, 2-Methyl-1-naphthol 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[3-(Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-[bis(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 76045-64-2, 3-(2-Aminoethylamino)aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-(methylamino)benzene 80592-80-9, 3-(2,3-Dihydroxypropylamino)-2-methylphenol 80592-81-0, 3-(2-Hydroxyethylamino)-2-methylphenol 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6,

2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-(2-Methoxyethylamino)phenol 146658-65-3, 5-(3-Hydroxypropylamino)-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethylamino)toluene 168092-23-7, Bis(2,4-diaminophenoxy)methane 207923-07-7, 5-Amino-2-ethylphenol 244028-58-8, 2,4-Bis(2-hydroxyethylamino)-1,5-dimethoxybenzene 244028-59-9, 5-(2-Hydroxyethylamino)-1,3-benzodioxole 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 364327-98-0, 1,3-Diamino-4-(2,3-dihydroxypropyl)benzene
RL: TEM (Technical or engineered material use); USES (Uses)
(couplers for oxidative **hair** dyes contg. aminohydroxyphenylacrylamide deriv. developers)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-Anilinoaniline 106-50-3, 1,4-Diaminobenzene, uses 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Bis(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-(2-hydroxyethylaminomethyl)phenol 126335-43-1, 1,4-Diamino-2-(hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-N-(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis(4-aminophenylamino)butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2,

1,4-Diamino-2-(methoxymethyl)benzene
RL: TEM (Technical or engineered material use); USES (Uses)
(in oxidative **hair** dye compns. contg. aminohydroxyphenylacrylamide deriv. developers)

IT 364598-99-2P 364599-00-8P 364599-01-9P 467466-31-5P 467466-32-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prodn. of aminohydroxyphenylacrylamide deriv. developers for oxidative **hair** dyes)

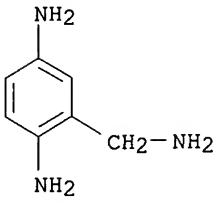
IT 467466-33-7P 467466-34-8P 467466-35-9P 467466-36-0P 467466-37-1P
467466-38-2P 467466-39-3P 467466-40-6P 467466-41-7P 467466-42-8P
467466-43-9P 467466-44-0P 467466-45-1P 467466-46-2P 467466-47-3P
467466-48-4P 467466-49-5P 467466-50-8P 467466-51-9P 467466-52-0P
467466-53-1P 467466-54-2P 467466-55-3P 467466-56-4P 467466-57-5P
467466-58-6P 467466-59-7P 467466-60-0P 467466-61-1P 467466-62-2P
467466-63-3P 467466-64-4P 467466-65-5P 467466-66-6P 467466-67-7P
467466-68-8P 467466-69-9P 467466-70-2P 467466-71-3P 467466-72-4P
467466-73-5P 467466-74-6P 467466-75-7P 467466-76-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prodn. of aminohydroxyphenylacrylamide deriv. developers for oxidative **hair** dyes)

IT 72-18-4, L-Valine, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 96-20-8, 2-Amino-1-butanol 99-57-0, 2-Amino-4-nitrophenol 107-10-8, Propylamine, reactions 107-11-9, Allylamine 107-15-3, Ethylenediamine, reactions 109-01-3 109-83-1, 2-(Methylamino)ethanol 109-85-3, 2-Methoxyethylamine 110-73-6, 2-(Ethylamino)ethanol 110-91-8, Morpholine, reactions 123-30-8, 4-Aminophenol 123-75-1, Pyrrolidine, reactions 498-63-5, Prolinol 616-30-8, 3-Amino-1,2-propanediol 617-89-0, Furfurylamine 765-30-0, Cyclopropylamine 917-54-4, Methyllithium 1001-53-2, N-Acetylethylenediamine 2038-03-1, 4-(2-Aminoethyl)morpholine 2605-67-6, Methoxycarbonylmethylenetriphenylphosphorane 2812-47-7, Prolinamide 3188-13-4, Chloromethyl ethyl ether 4214-76-0, 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6, 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 6168-72-5, 2-Aminopropanol 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6859-99-0, 3-Hydroxypiperidine 7575-35-1, 4-[Bis(2-hydroxyethyl)amino]aniline 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 25739-59-7, 2-Amino-3-hydroxypropionamide 50610-33-8 54840-15-2, tert-Butyl N-(4-hydroxyphenyl)carbamate 68621-88-5, tert-Butyl 3-aminophenylcarbamate 71026-66-9, tert-Butyl 4-aminophenylcarbamate 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8 460084-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; prodn. of aminohydroxyphenylacrylamide deriv. developers for oxidative **hair** dyes)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Henkel Kgaa; DE 19607751 A 1997 HCAPLUS

IT **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene
RL: TEM (Technical or engineered material use); USES (Uses)
(in oxidative **hair** dye compns. contg. aminohydroxyphenylacrylamide deriv. developers)

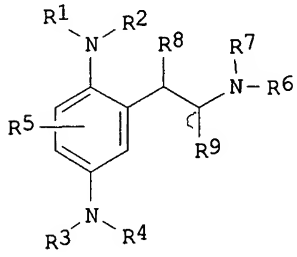
RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



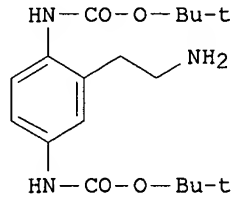
L26 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:750510 HCAPLUS
DN 137:280569
TI Preparation of 2-(2-aminoethyl)-1,4-benzenediamines for use in the oxidative dyeing of **keratin** fibers
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella A.-G., Germany
SO Ger. Offen., 20 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07C211-51
ICS C07C211-52; C07C211-53; C07C215-08; C07C217-00; D06P001-645; A61K007-13; C07C255-58
CC 40-6 (Textiles and Fibers)
Section cross-reference(s): 25, 41
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 10112506 | A1 | 20021002 | DE 2001-10112506 | 20010315 |
| PRAI DE 2001-10112506 | | 20010315 | | |

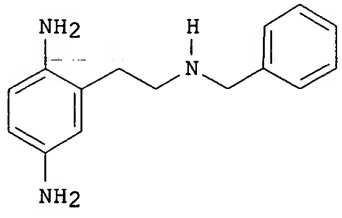
OS MARPAT 137:280569
GI



I



II



III

AB Title compds. I [R1-R4 = H, alkyl, hydroxyalkyl, etc.; R5 = H, halo, alkyl, etc.; R6, R7 = H, alkyl, alkene, etc.; R8, R9 =H, alkyl] were prepd. For example, NaBH(OAc)3 mediated reductive aminination of benzaldehyde with amine II, prepd. from 2-(2,5-diaminophenyl)ethanol sulfate in 2-steps, followed by amine deprotection, afforded benzenediamine III. In coloration studies of bleached **hair**, 29-examples of compds. I in combination with 4-dyeing developers resulted in a range of **hair** coloring, e.g., a prepn. of compd. III and 1,3-benzenediol produced the color blond.

ST prepn benzenediamine **keratin hair** oxidative dye

IT **Hair** preparations
(dyes; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

IT **Hair** preparations
Pigments, nonbiological
(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

IT **Keratins**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

IT 463935-72-0P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

IT 463935-71-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 91-56-5, 1H-Indole-2,3-dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, reactions 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline

78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisol 84540-48-7, 2,4-Diaminophenoxyacetic acid 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 168092-23-7, Di(2,4-diaminophenoxy)methane 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

IT **463935-35-5P 463935-36-6P 463935-37-7P 463935-38-8P 463935-39-9P 463935-40-2P 463935-41-3P 463935-42-4P 463935-43-5P 463935-44-6P 463935-45-7P 463935-46-8P 463935-47-9P 463935-48-0P 463935-49-1P 463935-50-4P 463935-51-5P 463935-52-6P 463935-53-7P**, N-[4-[[2-(2,5-Diaminophenyl)ethylamino]methyl]phenyl]acetamide Hydrochloride **463935-54-8P 463935-55-9P 463935-56-0P 463935-57-1P 463935-59-3P 463935-61-7P 463935-63-9P 463935-65-1P**, 2-[2-(2,5-Diaminophenyl)ethylamino]-5-nitrobenzoic acid Hydrochloride **463935-67-3P 463935-68-4P 463935-69-5P 463935-70-8P**, 4-[2-(2,5-Diaminophenyl)ethylamino]-3-nitrobenzoic acid Hydrochloride
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(product; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

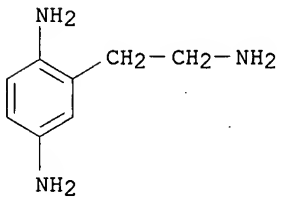
IT 90-15-3, 1-Naphthalenol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, 2-Thiophenecarboxaldehyde 100-10-7, 4-Dimethylaminobenzaldehyde 100-52-7, Benzaldehyde, reactions 106-50-3, 1,4-Diaminobenzene, reactions 107-82-4, 1-Bromo-3-methylbutane 108-46-3, 1,3-Dihydroxybenzene, reactions 109-65-9, 1-Bromobutane 120-57-0, 3,4-Methylenedioxybenzaldehyde 122-85-0, 4-Acetylamino-benzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-30-8, 4-Aminophenol 350-46-9, 4-Fluoronitrobenzene 364-73-8, 5-Bromo-2-fluoronitrobenzene 364-74-9, 2,5-Difluoronitrobenzene 364-76-1 446-35-5, 2,4-Difluoronitrobenzene 453-71-4, 4-Fluoro-3-nitrobenzoic acid 498-62-4, Thiophen-3-aldehyde 500-22-1, Pyridin-3-aldehyde 555-16-8, 4-Nitrobenzaldehyde, reactions

587-04-2, 3-Chlorobenzaldehyde 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 615-50-9 872-85-5, 4-Pyridinecarboxaldehyde 1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2, 2-Fluoronitrobenzene 2043-61-0, Cyclohexane-1-aldehyde 2835-95-2, 5-Amino-2-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 3446-89-7, 4-Methylsulfanylbenzaldehyde 4701-17-1, 5-Bromothiophen-2-aldehyde 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6203-18-5, 4-Dimethylamino-zimtaldehyde 6921-22-8, 2,3-Difluoronitrobenzene 7304-32-7, 2-Fluoro-5-nitrobenzoic acid 18791-75-8, 4-Bromothiophen-2-aldehyde 24424-99-5, Di-tert-butyldicarbonate 51980-54-2, 4-Pyrrolidin-1-ylbenzaldehyde 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 83763-48-8 84540-50-1, 3-Amino-2-chloro-6-methylphenol 93841-25-9, 2-(2,5-Diaminophenyl)ethanol Sulfate 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 155601-30-2 **334884-86-5 463935-73-1** 463935-74-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

IT **463935-35-5P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(product; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)

RN 463935-35-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(2-aminoethyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L26 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:733860 HCAPLUS

DN 137:252674

TI Synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and their use in oxidative **hair** dyes

IN Chassot, Laurent; Braun, Hans-Juergen

PA Wella AG, Germany

SO Ger. Offen., 16 pp.
CODEN: GWXXBX

DT Patent

LA German

IC ICM C07C211-51
ICS C07C215-08; C07C217-00; C07C211-52; C07C211-53; D06P001-32; D06P001-645; A61K007-13; C07D207-04; C07D211-06; C07D295-03; C07D213-04

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 10114084 | A1 | 20020926 | DE 2001-10114084 | 20010322 |
| | WO 2002076923 | A1 | 20021003 | WO 2001-EP12124 | 20011019 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | BR 2001010957 | A | 20030408 | BR 2001-10957 | 20011019 |
| PRAI | DE 2001-10114084 | A | 20010322 | | |
| | WO 2001-EP12124 | W | 20011019 | | |

OS MARPAT 137:252674

AB The invention concerns the synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and their use as coupling agents in oxidative **hair** dyes. The **hair** prepns. further contain developers, other coupling agents and direct dyes. Thus 1,3-diamino-4-(methylaminomethyl)-benzene hydrochloride was synthesized and used as a 1.25 mmol coupler ingredient in a **hair** dye that contained 1.25 mmol 1,4-diamino benzene as developer. Further ingredients were (g); potassium oleate ( 8% aq. soln.) 1.0; ammonia (22% aq. soln.) 1.0; ethanol 1.0; ascorbic acid 0.3; water to 100.

ST diamino aminomethyl benzene derivate oxidative **hair** dye

IT Dyes
(direct; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative **hair** dyes)

IT **Hair** preparations
(dyes, oxidative; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative **hair** dyes)

IT 460990-06-1P 460990-07-2P 460990-08-3P 460990-09-4P 460990-10-7P
460990-11-8P 460990-12-9P 460990-13-0P 460990-14-1P 460990-15-2P
460990-16-3P 460990-17-4P 460990-18-5P 460990-19-6P 460990-20-9P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(coupling agent; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative **hair** dyes)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2,

1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 620-17-7 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1,

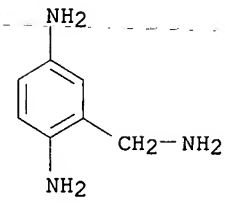
1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative **hair** dyes)

IT 74-89-5, Methylamine, reactions 107-11-9, Allylamine 107-15-3, Ethylene diamine, reactions 109-85-3, 2-Methoxyethylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 141-43-5, Ethanolamine, reactions 498-63-5, Prolinol 1001-53-2, N-Acetyl-ethylene diamine 4795-29-3, Tetrahydrofurfuryl amine 5382-16-1, 4-Hydroxypiperidine 6168-72-5, 2-Aminopropanol 6859-99-0, 3-Hydroxypiperidine 24424-99-5, Di-tert-butyl dicarbonate 40499-83-0, 3-Pyrrolidinol 98276-57-4, 2,4-Diaminobenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative **hair** dyes)

IT 364343-82-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative **hair** dyes)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative **hair** dyes)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:716265 HCAPLUS
DN 137:249072
TI Manufacture of N-(heteroarylmethyl)-m-phenylenediamine derivative-containing dyes for **keratin** fibers
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella Aktiengesellschaft, Germany
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C07D333-20
ICS C07D307-52; C07D233-54; C07D277-28; A61K007-13
CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 27, 62
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2002072568 | A1 | 20020919 | WO 2001-EP12053 | 20011018 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
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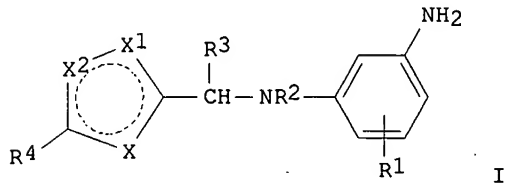
| DE 10111936 | C1 | 20021002 | DE 2001-10111936 | 20010313 |
| EP 1280791 | A1 | 20030205 | EP 2001-273957 | 20011018 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| BR 2001010490 | A | 20030408 | BR 2001-10490 | 20011018 |
| PRAI DE 2001-10111936 | A | 20010313 | | |
| WO 2001-EP12053 | W | 20011018 | | |

OS MARPAT 137:249072
GI



I

AB A dye developer-coupler combination useful for oxidative dyeing of **keratin** fibers, esp. human **hair**, comprises N-(heteroarylmethyl)-m-phenylenediamine derivs. [I; R1 = H, C1-4 (hydroxy)alkyl, C1-4 hydroxyalkoxy; R2, R3 = H, C1-6 alkyl; R4 = H, halo, cyano, C1-6 alkyl, C1-4 alkoxy, NO2, amino, etc.; X = S, N, O, CR6, NR5; X1 = S, N, O, CR7, NR5; X2 = S, N, O, CR8, NR5; R5 = H, C1-6 alkyl, Ph, etc.; R6-R8 = any of definitions for R4 (with a proviso)] or their salts

as couplers. For example, stirring 1,3-phenylenediamine with (Me3CCO)2O in CH2Cl2 in the presence of NaOH gave 30% tert-Bu (3-aminophenyl)carbamate. Stirring the latter with thiophene-2-carbaldehyde in MeOH in the presence of mol. sieve and treating the reaction mixt. at 0.degree. with BH3.cntdot.THF complex gave a dye coupler N-(thiophen-3-ylmethyl)-1,3-diaminobenzene.cntdot.HCl which, in combination with 1,4-diaminobenzene developer and H2O2 oxidn. agent, dyed human **hair** dark blue.

ST phenylenediamine heteroarylmethyl manuf oxidative **hair** dye coupler; aminophenylcarbamate ester prepn reductive amination oxidative **hair** dye coupler; thiophenecarbaldehyde reductive amination aminophenylcarbamate ester oxidative **hair** dye coupler

IT **Hair** preparations
(dyes, oxidative; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT **Keratins**
RL: MSC (Miscellaneous)
(fibers; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for)

IT 24424-99-5, Tert-Butyl dicarbonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with phenylenediamine; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 108-45-2, 1,3-Phenylenediamine, reactions 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with tert-Bu dicarbonate; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 460059-56-7P 460059-57-8P 460059-58-9P 460059-59-0P 460059-60-3P 460059-61-4P 460059-62-5P 460059-63-6P 460059-64-7P 460059-65-8P 460059-66-9P 460059-67-0P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye coupler; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 18210-25-8 460059-68-1 460059-69-2 460059-70-5 460059-71-6 460059-72-7 460059-73-8 460059-74-9 460059-75-0 460059-76-1
RL: TEM (Technical or engineered material use); USES (Uses)
(dye coupler; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methyl-benzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, uses 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-

Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 329320-36-7, 1-(2,5-Diamino-phenyl)ethanol 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene
RL: TEM (Technical or engineered material use); USES (Uses)
(dye developer; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 68621-88-5P, tert-Butyl (3-aminophenyl)carbamate 325953-48-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manuf. and reductive amination of aldehydes; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 7722-84-1, Hydrogen peroxide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(oxidn. agent; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 98-01-1, Furan-2-carbaldehyde, reactions 98-03-3, Thiophene-2-carbaldehyde 498-60-2, Furan-3-carbaldehyde 498-62-4, Thiophene-3-carbaldehyde 4521-33-9, 5-Nitrothiophene-2-carboxaldehyde 10111-08-7, Imidazole-2-carbaldehyde 10200-59-6, Thiazole-2-carboxaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive amination with (aminophenyl)carbamate ester; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

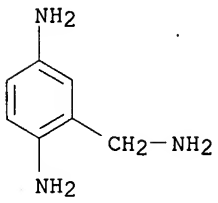
RE

(1) Henkel Kgaa; EP 0024660 A 1981 HCAPLUS
(2) Henkel Kgaa; EP 0024660 A 1981 HCAPLUS
(3) Kao Corp; EP 0761214 A 1997 HCAPLUS
(4) Kao Corp; EP 0761214 A 1997 HCAPLUS
(5) Oreal; DE 2827658 A 1979 HCAPLUS
(6) Oreal; DE 2827658 A 1979 HCAPLUS
(7) Wella Ag; EP 0963982 A 1999 HCAPLUS
(8) Wella Ag; EP 0963982 A 1999 HCAPLUS

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: TEM (Technical or engineered material use); USES (Uses)
(dye developer; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:714095 HCAPLUS
DN 137:252662
TI Oxidative **hair** dyes containing aldehydes in the dye solution for improving color intensity
PA Wella Ag, Germany
SO Ger. Gebrauchsmusterschrift, 36 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 20206612 | U1 | 20020919 | DE 2002-20206612 | 20020426 |
| PRAI DE 2002-20206612 | | 20020426 | | |

OS MARPAT 137:252662
AB The invention concerns oxidative **hair** dyes that are mixed before application with a hydrogen peroxide soln. that contains an aldehyde, linear or arom.; the obtained dye soln. excels improved color intensity. Thus a dye mixt. was prepd. that contained 0.01 mmol 1,4-diamino-2-methyl-benzene, 0.01 mmol resorcin and the components (g): EDTA disodium salt 0.3; ascorbic acid 0.3; lauryl ether sulfate 2.8; ethanol (96%) 8.0; ammonia (25 % aq. soln.) 9.0; water to 100. To 20 g of the dye mixt. was mixed with 20 g of 6% hydrogen peroxide in 1% aq. glutaraldehyde. The mixt. was applied to bleached **hair** for 10 min at 40.degree.C.
ST oxidn **hair** dye solvent aldehyde color intensity
IT Aldehydes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aliph.; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)
IT Aldehydes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(arom.; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)
IT Dyes
(direct; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)
IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)
IT Cis
pH
(oxidative **hair** dyes contg. aldehydes in dye soln. for

improving color intensity)

IT Aldehydes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)

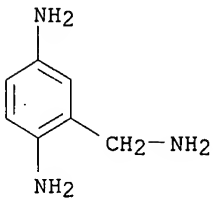
IT 66-25-1, Hexanal 75-07-0, Acetaldehyde, biological studies 78-84-2, Isobutyraldehyde 80-54-6, p-tert-Butyl-.alpha.-methylhydrocinnamic aldehyde 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 96-17-3, 2-Methylbutyraldehyde 97-96-1, 2-Ethylbutyraldehyde 99-07-0, 3-Dimethylaminophenol 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 101-86-0, 2-(Phenylmethylene)octanal 103-95-7 106-23-0, 3,7-Dimethyl-6-octenal 106-50-3, 1,4-Diaminobenzene, biological studies 107-75-5, 3,7-Dimethyl-7-hydroxyoctanal 108-45-2, 1,3-Diaminobenzene, biological studies 110-62-3, Pentanal 111-30-8, Glutaraldehyde 111-71-7, Heptanal 116-26-7, 2,6,6-Trimethyl-1,3-cyclohexadiene-1-carboxaldehyde 120-57-0, Heliotropin 122-40-7, 2-(Phenylmethylene)heptanal 122-78-1, Phenylethanal 123-05-7, 2-Ethylhexanal 123-15-9, 2-Methylpentanal 123-30-8, 4-Aminophenol 123-38-6, Propionaldehyde, biological studies 123-72-8, Butanal 124-13-0, Octanal 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-27-5, trans-3,7-Dimethyl-2,6-octadienal 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 542-78-9, Malondialdehyde 557-48-2, (E,Z)-2,6-Nonadienal 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 590-86-3, Isopentanal 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2043-61-0, Cyclohexanal 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 2987-16-8, 3,3-Dimethylbutyraldehyde 3131-52-0, 5,6-Dihydroxyindole 4221-03-8, 5-Hydroxypentanal 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5435-64-3, 3,5,5-Trimethylhexanal 5697-02-9, 2-Methyl-1-naphthol-acetate 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 7722-84-1, Hydrogen peroxide, biological studies 14268-66-7, 3,4-Methylenedioxyaniline 16251-77-7, 3-Phenylbutyraldehyde 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)-urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-

(methoxymethyl)phenol 30897-75-7, Pinoacetaldehyde 36207-16-6
39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-
1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 53687-29-9
55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
3-Amino-2,4-dichloro-phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
**67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 68039-49-6,
2,4-Dimethyl-3-cyclohexene-carboxaldehyde 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-
methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-
ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline
73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 75513-65-4,
1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
methylaminobenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol
80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0,
3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0,
1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-
dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid
84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-
hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene
94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8,
1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-
hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol
104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3,
1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-
dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-
methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol
111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4,
1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-
methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-
dimethoxybenzene 125109-85-5, 3-(3-Isopropylphenyl)butanal
126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6,
1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5,
1,4-Bis[(4-aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-
methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-
methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-
hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol
146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6,
2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-
methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-
pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7,
Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)-
phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene
207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-
Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7
306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 307493-94-3,
1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7,
1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-
methoxymethylbenzene 365533-47-7 460331-12-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:714094 HCAPLUS
DN 137:252661
TI Oxidative **hair** dyes containing 2,3-diaminophenol derivatives as coupling agents
PA Wella Ag, Germany
SO Ger. Gebrauchsmusterschrift, 42 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 20206274 | U1 | 20020919 | DE 2002-20206274 | 20020420 |
| PRAI | DE 2002-20206274 | | 20020420 | | |

OS MARPAT 137:252661
AB The invention concerns oxidative **hair** dyes that contain 2,3-diaminophenol derivs. as coupling agents; further the dyes contain developers and direct dyes. Thus 3-amino-2-(2-hydroxyethylamino)phenol dihydrochloride was synthesized and 1.25 mmol of the compd. was used in a **hair** dye compn. that further contained: 1.25 mmol 2.5-diaminotoluene sulfate; 10.0 g lauryl ether sulfate; 9.0 g ammonia (22% soln.); 7.8 g ethanol; 0.3 g ascorbic acid; 0.3 g EDTA disodium salt; water to 100 g.
ST diaminophenol derivate coupler oxidn **hair** dye
IT Dyes
(direct; oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)
IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)
IT Coupling agents
pH
(oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)

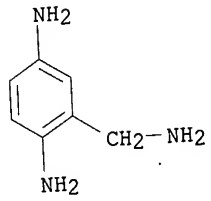
IT 7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)
IT 59649-56-8, 2,3-Diaminophenol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(derivs.; oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)
IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 533-73-3, 1,2,4-Trihydroxybenzene 611-24-5, 2-Methylaminophenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-98-5, 6-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 6-Amino-2-methylphenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53981-24-1 53981-25-2 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 87700-93-4 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 114484-31-0 122196-12-7 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 460049-84-7 460049-85-8 460049-87-0 460049-88-1 460049-89-2 460049-90-5 460049-92-7 460049-94-9 460049-96-1 460049-98-3 460050-00-4 460050-02-6 460050-04-8 460050-08-2 460050-09-3 460050-10-6 460050-11-7 460050-12-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)
IT 460050-15-1P 460050-16-2P 460050-17-3P 460050-18-4P 460050-19-5P 460050-20-8P 460050-21-9P 460050-22-0P 460050-23-1P 460050-25-3P 460050-27-5P 460050-28-6P 460050-29-7P 460050-30-0P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)
IT 109-85-3, 2-Methoxyethylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 141-43-5, 2-Ethanolamine, reactions 556-53-6, n-Propylamine hydrochloride 557-66-4, Ethylamine hydrochloride 616-30-8, 3-Amino-1,2-propanediol 929-06-6, 2-(2-Hydroxyethoxy)-ethylamine 5382-16-1, 4-Piperidinol 57260-73-8 62848-20-8, 3-Methoxypyrrolidine 68621-88-5 71026-66-9 101935-40-4,

2-Bromo-3-nitrophenol 460050-14-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT 460050-13-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:615598 HCAPLUS
DN 137:174510
TI Oxidative **hair** dyes containing 1,3-diamino-4-heteroarylbenzene derivatives and novel 1,3-diamino-4-heteroarylbenzene derivatives
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella Aktiengesellschaft, Germany
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C07D333-20
ICS C07D277-28; A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 27

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2002062783 | A1 | 20020815 | WO 2001-EP10411 | 20010910 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1261599 | A1 | 20021204 | EP 2001-960727 | 20010910 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, | | | | |

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

BR 2001009607 A 20030204 BR 2001-9607 20010910
US 2003093867 A1 20030522 US 2002-169120 20020626
PRAI DE 2001-10104768 A 20010202
WO 2001-EP10411 W 20010910

OS MARPAT 137:174510

AB The invention concerns oxidative **hair** dyes that contg. 1,3-diamino-4-heteroarylbenzene derivs. or their physiol. acceptable, water-sol. salts as coupling dyes; the **hair** dyes further contain developers, other coupling dyes and direct dyes. Thus 1,3-Diamino-4-(thiophene-2-yl)benzene hydrochloride was synthesized and used in a **hair** dye prepn. as a 0.1 g ingredient; other components were (g): 1,4-diaminobenzene 0.30; 1,3-dihydroxy benzene 0.20 ; 3-aminophenol 0.05;potassium oleate (8% aq.soln.) 10.0; ammonia (22% aq.soln.) 10.0; ethanol 10.0; ascorbic acid 0.3; water to 100.0.

ST oxidative **hair** dye diamino heteroaryl benzene deriv

IT Dyes
(direct; oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT pH
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)

IT 14221-01-3 72287-26-4
RL: CAT (Catalyst use); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 89-57-6, 5-Aminosalicylic acid 90-15-3, 1-Naphthol 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxy benzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxy benzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxy phenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxy benzene 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5697-02-9, 1-Acetoxy-2-methyl-naphthalene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 7722-84-1, Hydrogen peroxide, biological studies 17672-22-9, 2-Amino-6-methylphenol 26455-21-0, N-(3-Dimethylamino)phenylurea 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole

56216-28-5, 3,5-Diamino-2,6-dimethoxy-pyridine dihydrochloride
66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**,
1,4-Diamino-2-aminomethylbenzene 70643-20-8, 1,3-Diamino-4-(2-
hydroxyethoxy)-benzene sulfate 73793-80-3, 1,4-Diamino-2-
hydroxymethylbenzene 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane
tetrahydrochloride 79352-72-0, 4-Amino-2-(aminomethyl)phenol
83763-48-8, 2-Amino-4-(2-hydroxyethylamino)-anisole sulfate 84540-50-1,
3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-
methoxy-pyridine 94158-14-2, 4-(2-Hydroxyethyl)amino-1,2-
methylenedioxybenzene hydrochloride 97902-52-8, 1,4-Diamino-2-(1-
methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol
104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9,
4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-
hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-
hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-
hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-
Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-[(1-methylethyl)-1H-
pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole
157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-
1,4-diaminobenzene 217311-43-8, 2,4-Diamino-5-fluoro-toluene sulfate
244104-61-8 246244-41-7 306959-12-6 329320-36-7,
1-(2,5-Diaminophenyl)ethanol 337906-36-2, 1,4-Diamino-2-
methoxymethylbenzene 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-
methylphenol sulfate 446234-23-7 446234-24-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 108609-83-2P 446234-20-4P 446234-21-5P 446234-22-6P
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 364343-81-7P 446032-91-3P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 128-08-5, N-Bromosuccinimide 1003-09-4, 2-Bromo thiophene 3034-53-5,
2-Bromo-thiazole 13195-50-1, 2-Bromo-5-nitro-thiophene 14282-76-9,
2-Bromo-3-methyl-thiophene 59255-77-5 73183-34-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

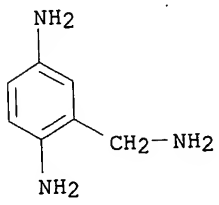
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Air Prod & Chem; EP 0272650 A 1988 HCAPLUS
(2) Bugaut, A; US 4324553 A 1982 HCAPLUS
(3) Gonzalez, V; QUIM ANAL (BARCELONA) 1986, V5(3), P335 HCAPLUS
(4) Oreal; EP 0667143 A 1995 HCAPLUS
(5) Wella Ag; DE 3132885 A 1983 HCAPLUS

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:615366 HCAPLUS
DN 137:159005
TI Oxidative **hair** dyes containing (1.1'-biphenyl)-2,4-diamine derivatives in addition to novel (1.1'-biphenyl)-2,4-diamine-derivatives
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella Aktiengesellschaft, Germany
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-13
ICS C07C215-74; C07C217-80; C07C209-52; C07C255-58; C07C225-22; C07C323-31; C07D317-58
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002062307 | A1 | 20020815 | WO 2001-EP10409 | 20010910 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | DE 10104770 | C1 | 20021017 | DE 2001-10104770 | 20010202 |
| | BR 2001009744 | A | 20030204 | BR 2001-9744 | 20010910 |
| PRAI | DE 2001-10104770 | A | 20010202 | | |
| | WO 2001-EP10409 | W | 20010910 | | |

OS MARPAT 137:159005
AB The invention relates to coloring agents **hair** contg. [1.1'-biphenyl]-2,4-diamine derivs. or their physiol. acceptable water sol. salts in addn. to novel [1.1'-biphenyl]-2,4-diamine derivs. Thus biphenyl-2,4,4'-triamine hydrochloride was synthesized and use in a **hair** dye as a 1.25 mmol component that further contained: 1.25 mmol 1,4-diaminobenzene; potassium oleate (8% aq.soln.) 1.0 g; ammonia (22% aq.soln.) 1.0 g; ethanol 1.0 g; ascorbic acid 0.3 g; water to 100 g.
ST oxidative **hair** dye biphenyl diamine deriv
IT **Hair** preparations

(dyes, oxidative; oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)

IT 14221-01-3, Pd(pph3)4 72287-26-4
RL: CAT (Catalyst use); USES (Uses)
(oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 89-57-6, 5-Aminosalicylic acid 92-52-4D, Biphenyl, derivs. 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-69-0, [1,1'-Biphenyl]-2,4,4'-triamine 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 7722-84-1, Hydrogen peroxide, biological studies 16069-32-2, Biphenyl-2,4-diamine 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 96886-30-5 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 443753-63-7, 4-Benzo[1,3]dioxol-5-yl-benzene-1,3-diamine 446033-16-5 446033-19-8 446033-20-1
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 446032-92-4P 446032-93-5P 446032-95-7P 446032-96-8P 446032-97-9P 446032-98-0P 446032-99-1P 446033-00-7P 446033-02-9P 446033-04-1P 446033-06-3P 446033-08-5P 446033-10-9P 446033-12-1P 446033-13-2P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 364343-81-7P 446032-91-3P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 104-95-0 106-38-7, 4-Bromotoluene 106-39-8, 4-Bromochlorobenzene 106-40-1, 4-Bromo-aniline 106-41-2, 4-Bromophenol 108-86-1, Bromobenzene, reactions 128-08-5 402-43-7, 4-Bromo-trifluoromethylbenzene 460-00-4, 4-Fluoro-1-bromobenzene 576-22-7, Benzene, 2-bromo-, 1,3-dimethyl- 577-19-5, 2-Bromonitrobenzene 586-78-7, 4-Bromonitrobenzene 591-20-8, 3-Bromophenol 623-00-7, 4-Bromobenzonitrile 2142-63-4, 3-Bromoacetophenone 2398-37-0, 3-Bromoanisole 2635-13-4 59255-77-5 73183-34-3 446032-94-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

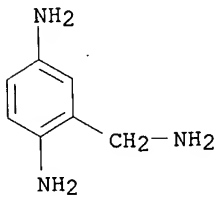
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Aravamuthan, S; JOURNAL OF APPLIED ELECTROCHEMISTRY 1989, V19(6), P897 HCAPLUS
(2) Bayer Ag; DE 2232095 A 1974 HCAPLUS
(3) Blank, W; US 3619399 A 1971 HCAPLUS
(4) Sandoz Ltd; GB 1425064 A 1976 HCAPLUS
(5) Wella Ag; WO 9959527 A 1999 HCAPLUS

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:607525 HCAPLUS
DN 137:159001
TI Oxidative **hair** dyes containing 1,3-diamino-5-heteroaryl benzene derivatives and synthesis of these dyes
PA Wella Ag, Germany
SO Ger. Gebrauchsmusterschrift, 36 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07D333-06

ICS C07D333-26; C07D277-02; A61K007-13; C07D307-34; C07D207-30; C07D233-54
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 27

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 20203720 | U1 | 20020814 | DE 2002-20203720 | 20020307 |
| | DE 10114425 | C1 | 20020822 | DE 2001-10114425 | 20010324 |
| PRAI | DE 2001-10114425 | IA | 20010324 | | |

OS MARPAT 137:159001

AB The invention concerns oxidative **hair** dyes that contg. 1,3-diamino-4-heteroarylbenzene derivs. or their physiol. acceptable, water-sol. salts as coupling agents and developers; the **hair** dyes also can contain other coupling dyes and direct dyes. Thus 1,3-Diamino-5-(thiophene-2-yl)benzene hydrochloride was synthesized and used in a **hair** dye prepn. as a 1.25 mmol ingredient; other components were: 1,4-diaminobenzene 1.25 mmol; potassium oleate (8% aq.soln.) 1.0 g; ammonia (22% aq.soln.) 1.0 g; ethanol 1.0 g; ascorbic acid 0.3 g; water to 100.0.

ST oxidative **hair** dye diamino heteroaryl benzene deriv

IT Dyes
(direct; oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT pH
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)

IT 14221-01-3 72287-26-4
RL: CAT (Catalyst use); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indoline dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-55-6, 2-Aminophenol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4,

2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 7722-84-1, Hydrogen peroxide, biological studies 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl) urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 168092-23-7, Di(2,4-diaminophenoxy)methane 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene
446017-84-1 446017-85-2 446017-86-3 446017-87-4 446017-88-5
446017-89-6 446017-90-9 446017-91-0 446017-92-1 446017-93-2
446017-94-3 446017-95-4 446017-96-5 446017-97-6 446017-98-7
446017-99-8 446018-00-4 446018-01-5 446018-02-6 446018-03-7
446018-04-8 446018-05-9 446018-06-0 446018-07-1 446018-08-2
446018-09-3 446018-10-6 446018-11-7 446018-12-8 446018-13-9
446018-14-0 446018-15-1 446018-16-2 446018-17-3
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 446017-78-3P 446017-79-4P 446017-80-7P 446017-81-8P 446017-82-9P
446017-83-0P
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 364038-88-0P 443753-62-6P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

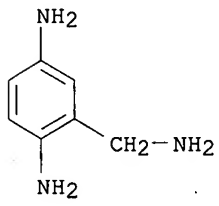
IT 872-31-1, 3-Bromo thiophene 1003-09-4, 2-Bromo thiophene 3034-53-5, 2-Bromo-thiazole 13195-50-1, 2-Bromo-5-nitro-thiophene 14282-76-9, 2-Bromo-3-methyl-thiophene 33786-90-2 40032-73-3, 3-Bromo-2-chloro-thiophene 53119-60-1, 2-Bromo-4-methyl-thiophene 73183-34-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-[(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6 329320-36-7, 1-(2,5-Diaminophenyl)ethanol 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-5-heteroaryl benzene derivs. and synthesis of dyes)

IT 446017-77-2P
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dyes contg. del 71,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-5-heteroaryl benzene

derivs. and synthesis of dyes)
RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:574866 HCAPLUS
DN 137:129534
TI Primary intermediates for oxidative coloration of **hair**
IN Lim, Mu-Ill; Pan, Yuh-guo
PA Clairol Incorporated, USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25

applicants

FAN.CNT 1

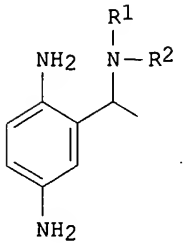
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2002058632 | A2 | 20020801 | WO 2002-US1621 | 20020118 |
| WO 2002058632 | A3 | 20030403 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

| | | | | |
|---|---|---|---|---|
| US 2002144357 | A1 | 20021010 | US 2002-52321 | 20020118 |
| PRAI US 2001-263567P | P | 20010123 | | |

OS MARPAT 137:129534
GI



I

AB Primary intermediates of **hair** coloring compns. of **hair** oxidative of **hair** are compds. of the formula [I]: where R1 and R2 are each individually selected from a hydrogen atom, a C1 to C3 alkyl group, a C1 to C5 mono or dihydroxyalkyl group; Ph or benzyl optionally substituted with an alkoxy group, or R1 and R2 together with the nitrogen atom to which they are attached form a piperazine, piperidine , imidazole, or morpholine ring.

ST **hair** dye primary intermediate oxidn benzenediamine

IT Oxidizing agents
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT **Hair** preparations
(dyes; 2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5, 2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1, 1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Aminopyridin-3-ol 17672-22-9, 2-Amino-6-methylphenol 26021-57-8 41927-22-4, 4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 83763-47-7 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 94082-77-6 129697-50-3 131311-66-5 155601-17-5 157469-54-0 220264-60-8 307493-94-3, 3-(2,4-Diaminophenoxy)-1-propanol 329320-36-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT **444177-65-5P 444177-66-6P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT 32580-41-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT 444177-67-7P 444177-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

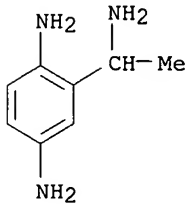
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

(Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT **444177-65-5P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

RN 444177-65-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(1-aminoethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:553048 HCAPLUS

DN 137:109116

TI (1,1'-Biphenyl)-3,5-diamine derivatives containing coloring agent as well as new (1,1'-biphenyl)-3,5-diamine derivatives for the oxidative coloring of **keratin** fibers

PA Wella A.-G., Germany

SO Ger. Gebrauchsmusterschrift, 41 pp.
CODEN: GGXXFR

DT Patent

LA German

IC ICM C07C211-51
ICS C07C215-68; C07C217-80; C07C225-22; C07C255-49; C07C323-31; D06P001-32; C07D317-48

CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 40, 41

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 20202609 | U1 | 20020725 | DE 2002-20202609 | 20020220 |
| PRAI | DE 2001-10111937 | IA | 20010313 | | |

OS MARPAT 137:109116

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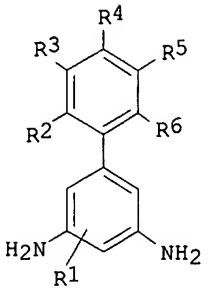


I

AB A medium for the oxidative coloring of **keratin** fibers on the basis of a developer/generator substance coupling agent combination, is characterized by the fact that it has as coupling agent at least 1,1'-Biphenyl-3,5-diamine deriv., e.g., I [R1 = H, halogen, C1-4-alkoxy, C1-4-hydroxyalkoxy, a C1-6-alkyl, C1-4-alkylthio, CF3, SiMe3, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl; R2, R3, R4, R5, R6 = H, halogen, CN, OH, C1-4-alkoxy, C1-4-hydroxyalkoxy, C1-6-alkyl, C1-4-alkylthio, SH, NO2, NH2, C1-4-monoalkylamino, di(C1-4-alkyl)amino, CF3, CHO, C(O)Me, C(O)CF3, a SiMe3, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, -CH:CHR7, (CH2)pCO2R8, (CH2)pR9, a -C(R10):NR11, CH(R13)NR14R15; R2R3, R5R6 = OCH2O; R7 = H, NO2, CO2R8, -C(O)Me; R8, R10, R13 = H, C1-4-alkyl; R9 = NH2, CN; R11, R14, R15 = H, OH, C1-4-alkyl, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, C6H4R12; R12 = H, NH2, OH; p = 1, 2, 3 or 4] or its salt with an inorg. or org. acid have no inversion center. Thus, (1,1'-Biphenyl)-3,5-diamine hydrochloride (I.cntdot.HCl; R1 - R6 = H) was prepd. from 5-bromo-1,3-phenylenediamine via protection with di(tert-butyl) dicarbonate, palladium-catalyzed coupling with 4,4,5,5,4',4',5',5'-octamethyl[2,2']bi[[1,3,2]dioxaborolanyl], palladium-catalyzed coupling of the resulting borolane with PhBr, and deprotection with HCl in EtOH.

ST biphenyldiamine deriv coloring agent prepn; **keratin** fiber oxidative coloring agent biphenyldiamine deriv

IT Amines, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(arom., biphenyl diamines; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT Aromatic compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(biphenyl diamines; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT **Hair** preparations
(dyes; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT **Keratins**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(fibers, oxidative coloring of; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT Coloring materials
(prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 73183-34-3, 4,4,5,5,4',4',5',5'-Octamethyl-[2,2']bi[[1,3,2]dioxaborolanyl]

RL: RCT (Reactant); RACT (Reactant or reagent)
(Pd.-catalyzed coupling with N,N'-Bis(BOC)phenylenediamine; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 104-95-0, 1-Bromo-4-(methylsulfanyl)benzene 106-38-7, 4-Bromotoluene 106-40-1, 4-Bromoaniline 106-41-2, 4-Bromophenol 108-86-1, Bromobenzene, reactions 402-43-7, 4-Bromo-.alpha.,.alpha.,.alpha.-trifluorotoluene 460-00-4, 4-Bromo-1-fluorobenzene 576-22-7, 2-Bromo-m-xylene 577-19-5, 2-Bromo-1-nitrobenzene 586-78-7, 4-Bromo-1-nitrobenzene 591-20-8, 3-Bromophenol 623-00-7, 4-Bromobenzonitrile 2142-63-4, 3-Bromoacetophenone 2398-37-0, 3-Bromoanisole 2635-13-4, 5-Bromobenzo[1,3]dioxole 29682-39-1, 1-Bromo-2-chloro-4-nitrobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(Pd.-catalyzed coupling with [[1,3,2]dioxaborolan-1-yl]phenylenediamine; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 89-57-6, 5-Aminosalicylic acid 90-15-3, 1-Naphthol 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-72-7, 2-Chloro-1,4-dimethylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-(Methylenedioxy)phenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5697-02-9, 1-Acetoxy-2-methylnaphthalene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6369-59-1, 2,5-Diaminotoluene sulfate 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 83763-48-8, 2-Amino-4-[(2-hydroxyethyl)amino]anisole sulfate 84540-50-1, 3-Amino-2-chloro-6-methylphenol 88209-80-7, 3,5-Diamino-(1,1'-biphenyl)-4-ol 91391-76-3, (1,1'-Biphenyl)-3,5-diamine 93841-25-9, 2-(2,5-Diaminophenyl)ethanol sulfate 94158-14-2, 4-[(2-Hydroxyethyl)amino]-1,2-(methylenedioxy)benzene hydrochloride 96886-30-5 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, 2,5-Diamino-1,1'-biphenyl 110952-46-0, 4-Amino-2-[[(2-hydroxyethyl)amino]methyl]phenol 126335-43-1, 1,4-Diamino-2-(hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 131657-78-8, 6-Chloro-2-(ethylamino)-4-

nitrophenol 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole sulfate 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis[(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(thien-2-yl)benzene 246244-41-7, 1,4-Diamino-2-(thien-3-yl)benzene 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 329320-36-7, 1-(2,5-Diaminophenyl)ethanol 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 443753-63-7, 4-[Benzo[1,3]dioxol-5-yl]benzene-1,3-diamine 443753-64-8, 4'-Fluoro-1,1'-biphenyl-3,5-diamine 443753-65-9, 4'-Amino-1,1'-biphenyl-3,5-diamine 443753-66-0, 3'-Hydroxy-1,1'-biphenyl-3,5-diamine 443753-67-1, 4'-Methoxy-1,1'-biphenyl-3,5-diamine
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(**hair** dye component; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 443753-46-6P, (1,1'-Biphenyl)-3,5-diamine hydrochloride 443753-47-7P, (1,1'-Biphenyl)-3,5,4'-triamine hydrochloride 443753-48-8P, 3',5'-Diamino-1,1'-biphenyl-4-ol hydrochloride 443753-49-9P, 4'-Methyl-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-50-2P, 3',5'-Diamino-1,1'-biphenyl-4-carbonitrile hydrochloride 443753-51-3P, 4'-Nitro-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-52-4P, 4'-Trifluoromethyl-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-53-5P, [5-Benzo[1,3]dioxol-5-yl]benzene-1,3-diamine hydrochloride 443753-54-6P, 4'-Fluoro-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-55-7P, 2',4'-Dimethyl-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-56-8P, 3',5'-Diamino-1,1'-biphenyl-3-ol hydrochloride 443753-57-9P, 1-(3',5'-Diamino-1,1'-biphenyl-3-yl)ethanone hydrochloride 443753-58-0P, 2'-Nitro-1,1'-biphenyl-3,5-diamine hydrochloride 443753-59-1P, 3'-Methoxy-1,1'-biphenyl-3,5-diamine hydrochloride 443753-60-4P, 4'-Methylsulfanyl-1,1'-biphenyl-3,5-diamine hydrochloride 443753-61-5P, 2'-Chloro-4'-nitro-1,1'-biphenyl-3,5-diamine hydrochloride
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**hair** dye component; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 18242-39-2, 1-Bromo-3,5-dinitrobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(nitro group redn. of; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 443753-62-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Pd.-catalyzed coupling with bromobenzene; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

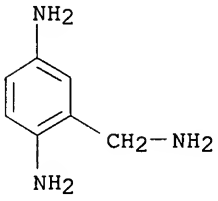
IT 364038-88-0P, tert-Butyl [5-bromo-3-(tert-butoxycarbonylamino)phenyl]carbamic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Pd.-catalyzed coupling with octamethyl[2,2']bi[[1,3,2]dioxaborolanyl]; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring

agents for the oxidative coloring of **keratin** fibers)

IT 33786-90-2P, 5-Bromo-1,3-phenylenediamine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and protection with di(tert-butyl) dicarbonate; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(**hair** dye component; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:465768 HCAPLUS
DN 137:37385
TI Aminophenol compounds as couplers in oxidative **hair** dyeing
IN Lim, Mu-Ill; Pan, Yuh-Guo; Popp, Margaret
PA Clairol Incorporated, USA
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K007-13
ICS C07C211-44
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002047635 | A1 | 20020620 | WO 2001-US46464 | 20011207 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 6409773 | B1 | 20020625 | US 2000-736913 | 20001214 |
| | AU 2002028800 | A5 | 20020624 | AU 2002-28800 | 20011207 |
| PRAI | US 2000-736913 | A | 20001214 | | |
| | WO 2001-US46464 | W | 20011207 | | |

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

OS MARPAT 137:37385

AB Aminophenol compds. are described as novel orange couplers for use in **hair** coloring compns. comprising one or more oxidative **hair** coloring agents in combination with one or more oxidizing agents. These novel couplers provide for dyeing of **hair** that provides color or shades that possess good wash fastness and do not undergo the significant changes on exposure to light or shampooing as experienced with 5-amino-2-methylphenol. The novel couplers are prepd. by a reaction of an aminophenol with an appropriate ketone in the presence of suitable reducing agent, such as sodium triacetoxyborohydride or sodium borohydride. For example, 5-(1-cyclopropylethylamino)-2-methylphenol was prepd. as its trifluoroacetate (TFA) salt by reacting cyclopropyl Me ketone (40.4 mg, 0.48 mmole) with 5-amino-2-methylphenol (49.3 mg, 0.40 mmole) in anhyd. 1,2-dichloroethane soln. in presence of 1% acetic acid at room temp. using sodium triacetoxyborohydride (169.9 mg, 0.80 mmole) as reducing agent.

ST aminophenol compd prepn coupler oxidative **hair** dye

IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT Human
Oxidizing agents
(oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT Reducing agents
(prepn. of aminophenol compds. as couplers in oxidative **hair** dyeing)

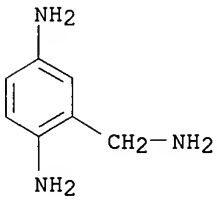
IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5, 2-Methylbenzene-1,4-diamine 106-50-3, p-Phenylenediamine, biological studies 108-45-2, Benzene-1,3-diamine, biological studies 108-46-3, Benzene-1,3-diol, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methylresorcinol 1004-74-6, Pyrimidinetetramine 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 7722-84-1, Hydrogen peroxide, biological studies 17672-22-9, 2-Amino-6-methylphenol **67199-87-5** 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 129697-50-3 155601-17-5 220264-58-4 220264-60-8 244104-61-8 246244-41-7 329320-36-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT 2835-95-2, 5-Amino-2-methylphenol
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT 437702-27-7P 437702-28-8P 437702-29-9P 437702-30-2P 437702-31-3P 437702-32-4P 437702-33-5P 437702-34-6P 437702-35-7P 437702-36-8P 437702-37-9P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of aminophenol compds. as couplers in oxidative **hair** dyeing)

IT 765-43-5, Cyclopropyl methyl ketone
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of aminophenol compds. as couplers in oxidative **hair**

dyeing)
IT 16940-66-2, Sodium borohydride 56553-60-7, Sodium triacetoxyborohydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reducing agent; prepn. of aminophenol compds. as couplers in oxidative **hair** dyeing)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Andrillon; US 4065255 1977
(2) Audousset; US 6004356 1999 HCAPLUS
IT **67199-87-5**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dye compns. contg. aminophenol compds. as couplers)
RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:747103 HCAPLUS
DN 135:308585
TI 1,3-Dihydroxybenzene derivatives and compositions containing them as coloring agents for **keratin** fibers
PA Wella AG, Germany
SO Ger. Gebrauchsmusterschrift, 45 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07D333-04
ICS A61K007-13; C07D213-04; C07D239-26
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 25, 27
FAN.CNT 2

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 20108704 | U1 | 20011011 | DE 2001-20108704 | 20010525 |
| WO 2002096901 | A2 | 20021205 | WO 2002-EP850 | 20020128 |
| WO 2002096901 | A3 | 20030313 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

BR 2002005398 A 20030701 BR 2002-5398 20020128
PRAI DE 2001-10125453 A 20010525
DE 2001-20108704 U 20010525
WO 2002-EP850 W 20020128
OS MARPAT 135:308585
AB An agent for coloring **keratin** fibers comprises a coupling agent combined with a developing agents. The invention comprises at least one 1,3-dihydroxybenzene deriv. having a mol. structure defined in the claims. Among the derivs. of the invention are 1,3-dihydroxy-4-(thiophen-2-yl)benzene and 1,3-dihydroxy-4-(5-nitrothiophen-2-yl)benzene. A developer that can be used is 1,4-diaminobenzene.
ST **keratin hair** dye dihydroxybenzene deriv
IT pH
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT **Keratins**
RL: RCT (Reactant); RACT (Reactant or reagent)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT **Hair** preparations
(dyes; 1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT 108-46-3D, 1,3-Dihydroxybenzene, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 1H-Indole-2,3-dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9 101-54-2 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7 1630-11-1 1687-53-2 1953-54-4, 5-Hydroxyindole 2359-52-6 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 5862-80-6 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7 6941-70-4 7218-02-2 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 22446-41-9 26011-57-4, 6-Amino-3,4-Dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,

5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-methoxymethylphenol 39489-79-7, 5-Amino-2,4-dichlorophenol 45514-38-3 53222-92-7, 3-Amino-2-methylphenol 55302-96-0 61693-42-3, 3-Amino-2,4-dichlorophenol 66566-48-1 **67199-87-5** 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7 71500-41-9 71500-42-0 73793-80-3 75513-65-4 76045-64-2 78661-33-3 79352-72-0, 4-Amino-2-aminomethylphenol 80592-80-9 80592-81-0 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7 90817-34-8 93841-24-8 94082-77-6 97902-52-8 104333-08-6 104333-09-7, 4-Amino-2-hydroxymethylphenol 104752-48-9 104752-50-3 104752-51-4 105293-89-8 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 126335-43-1 128729-30-6 130582-53-5 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 155601-16-4 155601-17-5 157469-54-0 157469-55-1 159661-45-7 168092-23-7 168202-61-7, 4-Amino-3-hydroxymethylphenol 207568-58-9 207923-07-7 244104-61-8 246244-41-7 306959-12-6 307493-94-3 329320-36-7 337906-36-2 359866-26-5 359866-36-7 365548-62-5 365548-63-6 365548-64-7 365548-65-8 365548-66-9 365548-67-0 365548-68-1 365548-73-8
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)

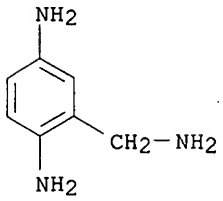
IT 31963-61-8P 365548-74-9P
RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)

IT 110-87-2, 3,4-Dihydro-2H-pyran 6626-15-9, 4-Bromo-1,3-dihydroxybenzene 14221-01-3 24057-28-1 72287-26-4 73183-34-3 106120-04-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)

IT 365548-75-0P 365548-76-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)

IT **67199-87-5**
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent); USES (Uses)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)




L26 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:730682 HCAPLUS
DN 135:293678
TI Use of p-diaminobenzene derivatives and **hair** dyes containing said compounds
IN Chassot, Laurent
PA Wella Aktiengesellschaft, Germany
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM C07C211-53
ICS C07C215-68; C07C215-16; A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 41
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2001072686 | A1 | 20011004 | WO 2001-EP1860 | 20010220 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| DE 10014855 | A1 | 20011011 | DE 2000-10014855 | 20000324 |
| DE 10014855 | C2 | 20020516 | | |
| BR 2001005310 | A | 20020219 | BR 2001-5310 | 20010220 |
| EP 1183227 | A1 | 20020306 | EP 2001-919309 | 20010220 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| US 2003145764 | A1 | 20030807 | US 2001-19861 | 20011109 |
| PRAI DE 2000-10014855 | A | 20000324 | | |
| WO 2001-EP1860 | W | 20010220 | | |

OS MARPAT 135:293678
AB The invention relates to p-diaminobenzene derivs. or physiol. acceptable, water-sol. salts thereof and the use thereof as developer substances in oxidn. dying of **keratin** fibers.
ST diaminobenzene deriv **hair** dye
IT Dyes
(developers; p-diaminobenzene derivs. and **hair** dyes contg. them)
IT **Hair** preparations

(dyes, oxidative; p-diaminobenzene derivs. and **hair** dyes contg. them)

IT Coupling agents
(p-diaminobenzene derivs. and **hair** dyes contg. them)

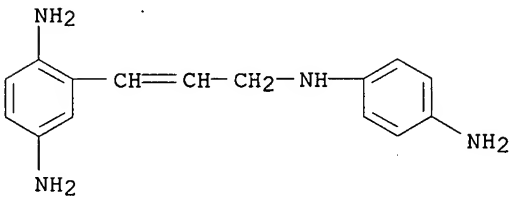
IT 95-70-5, 2,5-Diaminotoluene 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 93841-24-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer; p-diaminobenzene derivs. and **hair** dyes contg. them)

IT 123-30-8D, 4-Aminophenol, derivs. 1004-74-6D, Tetraaminopyrimidine, derivs. 16461-98-6D, 1H-Pyrazole-3,4-diamine, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developers; p-diaminobenzene derivs. and **hair** dyes contg. them)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8 89-83-8 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3D, p-Diaminobenzene, derivs. 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Amino-phenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 1H-Indol-4-ol 2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0 6941-70-4 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1 22446-41-9 26011-57-4 26021-57-8 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71500-41-9 71500-42-0 76045-64-2 80592-80-9 80592-81-0 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6 104752-50-3 104752-51-4 110102-86-8 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4 122455-85-0, 5-Amino4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 168092-23-7 180156-45-0 207923-07-7 359866-26-5 359866-36-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(p-diaminobenzene derivs. and **hair** dyes contg. them)

IT **364343-16-8 364343-17-9 364343-18-0 364343-19-1 364343-20-4 364343-21-5 364343-22-6 364343-23-7 364343-24-8 364343-25-9 364343-26-0 364343-27-1 364343-28-2** 364343-29-3 364343-30-6 364343-31-7 364343-32-8 **364353-63-9**
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or

chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(p-diaminobenzene derivs. and **hair** dyes contg. them)
IT **364343-16-8DP**, derivs. **364343-34-0P 364343-35-1P**
**364343-36-2P 364343-37-3P 364343-38-4P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(p-diaminobenzene derivs. and **hair** dyes contg. them)
IT 917-54-4, Methyllithium 2136-75-6 24424-99-5, Di-tert-butyldicarbonate 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(p-diaminobenzene derivs. and **hair** dyes contg. them)
IT 244104-65-2P 325953-36-4P 364343-33-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(p-diaminobenzene derivs. and **hair** dyes contg. them)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Henkel Kgaa; EP 0286896 A 1988 HCAPLUS
(2) Wella Ag; DE 19822041 A 1999 HCAPLUS
IT **364343-16-8**
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
(p-diaminobenzene derivs. and **hair** dyes contg. them)
RN 364343-16-8 HCAPLUS
CN 1,4-Benzenediamine, 2-[3-[(4-aminophenyl)amino]-1-propenyl]- (9CI) (CA INDEX NAME)

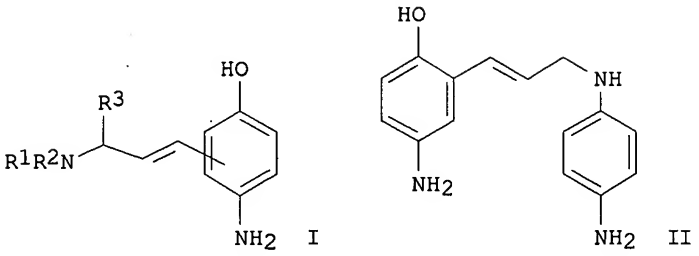



L26 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:729681 HCAPLUS
DN 135:288573
TI Preparation of aminophenol derivatives and their use in coloring agents
PA Wella AG, Germany
SO Ger. Gebrauchsmusterschrift, 40 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07C215-80
ICS C07C217-08; D06P001-645; A61K007-13; C07D317-48; C07D295-04; C07D521-00; C07F007-10
CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 41, 62
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 20111038 | U1 | 20011004 | DE 2001-20111038 | 20010704 |

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

PRAI DE 2001-20111038 20010704
OS MARPAT 135:288573
GI



I II

AB Para-aminophenol derivs. I [R1, R2 = H, C1-2-alkoxy, C1-6-alkyl, C3-6-alkenyl, C2-4-hydroxyalkyl, C3-4-dihydroxyalkyl, C2-4-aminoalkyl, C2-4-(dimethylamino)alkyl, C2-4-(acetylamino)alkyl, C2-4-methoxyalkyl, C2-4-ethoxyalkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-(aminocarbonyl)alkyl, pyridylmethyl, furfuryl, thienylmethyl, hydrogenated furfuryl, (un)substituted pyridyl, Ph, aminopyrazolyl; R1R2N = (un)substituted piperidino, morpholino, piperazino, pyrrolidino; R3 = H, C1-6-alkyl] their physiol. compatible, water sol. salts are claimed. Thus, 4-amino-2-[3-{(4-aminophenyl)amino}propenyl]phenol hydrochloride (II.cntdot.HCl) was prepd. from 4-HOC6H4NHBoc (Boc = CO2CMe3) via ortho bromination, hydroxyl group protection with ClCH2OEt, debromination-formylation, Wittig reaction with Ph3P:CHCHO, and reductive amination with 4-H2NC6H4NHBoc. I were used in oxidative **hair** coloring formulations.

ST aminophenol deriv prepn coloring agent

IT Phenols, preparation
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(amino; prepn. of aminophenol derivs. and their use in coloring agents)

IT Cosmetics
(coloring agents; prepn. of aminophenol derivs. and their use in coloring agents)

IT Dyes
(direct; prepn. of aminophenol derivs. and their use in coloring agents)

IT **Hair** preparations
(dyes, oxidative; prepn. of aminophenol derivs. and their use in coloring agents)

IT Amines, preparation
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(phenolic; prepn. of aminophenol derivs. and their use in coloring agents)

IT Coloring materials
Stains, coloring materials
(prepn. of aminophenol derivs. and their use in coloring agents)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4,

2,3-Dihydroxynaphthalene 92-65-9 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, uses 108-45-2, 1,3-Diaminobenzene, uses 108-46-3, 1,3-Dihydroxybenzene, uses 137-19-9 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7 1630-11-1 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 5862-80-6 6265-21-0, 3-[(2-Hydroxyethyl}amino]aniline 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 14268-66-7, 1,3-Benzodioxol-5-amine 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[3-(Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 28365-08-4 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichlorophenol 45514-38-3 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5** 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71077-37-7 71500-41-9 71500-42-0 73793-80-3 75513-65-4 76045-64-2 78661-33-3 79352-72-0, 4-Amino-2-(aminomethyl)phenol 80592-80-9 80592-81-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 83763-48-8 83789-94-0 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 94082-77-6 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3 104752-51-4 105293-89-8 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[{(2-hydroxyethyl)amino)methyl)phenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8 126335-43-1 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5 131657-78-8 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,

2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3
149330-25-6 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole
155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0,
4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1
168092-23-7 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9
207923-07-7 217311-43-8 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-
benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3
329320-36-7 337906-36-2 364328-00-7 364328-01-8 364328-20-1
364328-21-2
RL: NUU (Other use, unclassified); USES (Uses)
(oxidative **hair** coloring component; prepn. of aminophenol
derivs. and their use in coloring agents)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or
reagent); USES (Uses)
(oxidative **hair** coloring component; prepn. of aminophenol
derivs. and their use in coloring agents)

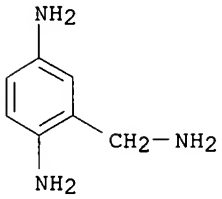
IT 615-50-9P 74918-21-1P, 1,3-Bis(2,4-diaminophenoxy)propane
tetrahydrochloride 93841-25-9P 155601-30-2P 364598-57-2P
364598-58-3P 364598-59-4P 364598-60-7P 364598-61-8P 364598-62-9P
364598-63-0P 364598-64-1P 364598-65-2P 364598-66-3P 364598-67-4P
364598-68-5P 364598-69-6P 364598-70-9P 364598-71-0P 364598-72-1P
364598-73-2P 364598-74-3P 364598-75-4P 364598-76-5P 364598-77-6P
364598-78-7P 364598-79-8P 364598-80-1P 364598-81-2P 364598-82-3P
364598-83-4P 364598-84-5P 364598-86-7P 364598-87-8P 364598-88-9P
364598-89-0P 364598-90-3P 364598-91-4P 364598-92-5P 364598-93-6P
364598-94-7P 364598-95-8P 364598-96-9P
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(oxidative **hair** coloring component; prepn. of aminophenol
derivs. and their use in coloring agents)

IT 63-74-1, 4-Aminobenzenesulfonamide 75-04-7, Ethylamine, reactions
75-31-0, Isopropylamine, reactions 99-57-0, 2-Amino-4-nitrophenol
107-11-9, Allylamine 107-15-3, Ethylenediamine, reactions 109-01-3
109-83-1, (2-Hydroxyethyl)methylamine 109-85-3, (2-Methoxyethyl)amine
110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine,
reactions 123-75-1, Pyrrolidine, reactions 498-63-5, Prolinol
504-29-0, 2-Aminopyridine 617-89-0, Furfurylamine 765-30-0,
Cyclopropylamine 1001-53-2, N-Acetylethylenediamine 2136-75-6,
(Formylmethylene)triphenylphosphorane 4795-29-3, Tetrahydrofurfurylamine
5382-16-1, 4-Hydroxypiperidine 6638-79-5, N,O-Dimethylhydroxylamine
hydrochloride 6859-99-0, 3-Hydroxypiperidine 25808-30-4,
(Methylamino)acetonitrile hydrochloride 35303-76-5, 4-(2-
Aminoethyl)benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine
54840-15-2 71026-66-9 325953-40-0 325953-41-1 325953-45-5
325953-46-6 364598-97-0 364598-98-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of aminophenol derivs. and their use in coloring agents)

IT 364598-99-2P 364599-00-8P 364599-01-9P 364599-02-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of aminophenol derivs. and their use in coloring agents)

IT **67199-87-5**
RL: NUU (Other use, unclassified); USES (Uses)
(oxidative **hair** coloring component; prepn. of aminophenol
derivs. and their use in coloring agents)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:729680 HCAPLUS
DN 135:288588
TI (m-Diaminophenyl)acrylamide derivatives and **hair** coloring agents containing these compounds
PA Wella AG, Germany
SO Ger. Gebrauchsmusterschrift, 48 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07C237-20
ICS A61K007-13; C07D317-48; C07D295-04
CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 62
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 20111037 | U1 | 20011004 | DE 2001-20111037 | 20010704 |
| PRAI DE 2001-20111037 | | 20010704 | | |

OS MARPAT 135:288588
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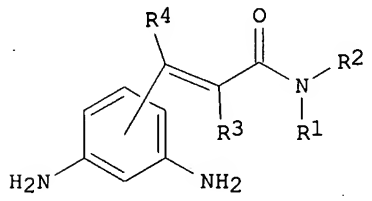


I

AB (m-Diaminophenyl)acrylamide derivs. I [R1, R2 = H, C1-2 alkoxy, C1-6 alkyl, unsatd. C3-6 alkyl, C2-4 hydroxyalkyl, C3-4 dihydroxyalkyl, C2-4 aminoalkyl, a C2-4 dimethylaminoalkyl, C2-4 acetylaminoalkyl, a C2-4 methoxyalkyl, C2-4 ethoxyalkyl, C1-4 cyanoalkyl, C1-4 carboxyalkyl, C2-4 aminocarbonylalkyl, pyridylmethyl, furfuryl, hydrogenated furfuryl, substituted pyridyl, (un)substituted Et, (un)substituted Ph, substituted aminopyrazolyl; or R1 and R2 together with the N atom form a ring; R3, R4 = H, C1-4 alkyl; preferably, R3 = R4 = H, or R1, R2 and R4 = H, R2 = aminophenyl, hydroxyphenyl] or their physiol. compatible, water-sol. salts, useful in oxidative **hair** dyes based on a developer substance-coupling substance combination in one suitable cosmetic carrier,

are claimed. Preferred compds. I are 3-(2,4-diaminophenyl)-1-morpholinopropenone, 3-(2,4-diaminophenyl)-N-(4-hydroxyphenyl)acrylamide, 3-(3,5-diaminophenyl)-N-(4-hydroxyphenyl)acrylamide, N-(3-aminophenyl)-3-(3,5-diaminophenyl)acrylamide and N-(4-aminophenyl)-3-(3,5-diaminophenyl)acrylamide, or their physiol. acceptable salts (prepns. given). In examples given, compds. I are formulated with one or more known developer substances and one or more known addnl. coupling substances to give various shades of color when applied to **hair**; e.g., 0.10 g 3-(2,4-diaminophenyl)-1-morpholinopropenone HCl salt, 0.30 g 1,4-diaminobenzene, 0.05 g 1,3-diamino-4-(2-hydroxyethyl)aminoanisole sulfate, and 0.05 g 3-aminophenol (formulation given) afforded blond **hair**.

ST acrylamide diaminophenyl prepn **hair** dye component; coupling substance oxidative **hair** dye acrylamide

IT **Hair** preparations
(dyes, oxidative; (diaminophenyl)acrylamide derivs. in)

IT Cosmetics
**Hair**
(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT **Keratins**
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT Amides, preparation
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT 2605-67-6, Methoxycarbonylmethylenetriphenylphosphorane
RL: RCT (Reactant); RACT (Reactant or reagent)
(Wittig olefination by, of formylbenzene deriv.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[(3-Dimethylamino)phenyl]urea 28020-38-4,

2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 74918-21-1 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6 164919-03-3 168092-23-7, Bis(2,4-diaminophenoxy)methane 207923-07-7 244028-58-8, 2,4-Bis[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 364343-80-6
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(addnl. coupling substance component in oxidative **hair** dye based on developer-coupling substance combination contg. (diaminophenyl)acrylamide derivs.)

IT 62-53-3, Aniline, reactions 74-89-5, Methylamine, reactions 107-11-9, Allylamine 107-15-3, Ethylenediamine, reactions 110-91-8, Morpholine, reactions 121-88-0, 2-Amino-5-nitrophenol 123-75-1, Pyrrolidine, reactions 498-63-5, Prolinol 616-30-8, 3-Amino-1,2-propanediol 1001-53-2, N-Acetylethylenediamine 5382-16-1, 4-Hydroxypiperidine 6315-89-5, 3,4-Dimethoxyaniline 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6859-99-0, 3-Hydroxypiperidine 33786-90-2, 5-Bromo-1,3-diaminobenzene 40499-83-0, 3-Hydroxypyrrolidine 68621-88-5 71026-66-9, tert-Butyl (4-aminophenyl)carbamate 325953-40-0 325953-41-1 325953-45-5 325953-46-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation by, of protected (diaminophenyl)acrylic acid derivs.)

IT 2835-95-2, 5-Amino-2-methylphenol
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(amidation by, of protected (diaminophenyl)acrylic acid derivs. and use as addnl. coupling substance component in oxidative **hair** dye based on developer-coupler combination)

IT 123-30-8, 4-Aminophenol
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(amidation by, of protected (diaminophenyl)acrylic acid derivs. and use

as developer substance component in oxidative **hair** dyes)

IT 99-98-9, 4-(Dimethylamino)aniline
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(amidation by, of protected (diaminophenyl)acrylic acid derivs., and use as developer substance component in oxidative **hair** dye)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 1,4-Diamino-2-chlorobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)pyrimidinone 1630-11-1 2359-52-6 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6 6369-59-1, 2,5-Diaminotoluene sulfate 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2 7575-35-1 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159621-77-9 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 364343-79-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer substance component in oxidative **hair** dye based on developer-coupling substance combination)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(directly absorbable dye component in oxidative **hair** dye prepn.)

IT 364038-89-1P 364343-82-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Wittig olefination of)

IT 364038-88-0P 364343-81-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and formylation of)

IT 6264-69-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and protection of amino groups in, with BOC groups)

IT 364343-83-9P 364343-85-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and sapon. of)

IT 364343-44-2P 364343-45-3P 364343-46-4P 364343-47-5P 364343-48-6P
364343-49-7P 364343-50-0P 364343-51-1P 364343-52-2P 364343-53-3P
364343-54-4P 364343-55-5P 364343-56-6P 364343-57-7P 364343-58-8P
364343-59-9P 364343-60-2P 364343-61-3P 364343-62-4P 364343-63-5P
364343-64-6P 364343-65-7P 364343-66-8P 364343-67-9P 364343-68-0P
364343-69-1P 364343-70-4P 364343-71-5P 364343-72-6P 364343-73-7P
364343-74-8P 364343-75-9P 364343-76-0P 364343-77-1P 364343-78-2P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. for use as coupling substance component in oxidative **hair** dye based on developer-coupling substance combination)

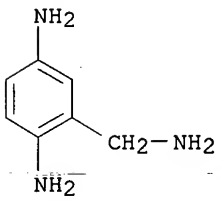
IT 364343-39-5P 364343-40-8P 364343-41-9P 364343-42-0P 364343-43-1P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. for use as coupling substance component in oxidative **hair** dye based on developer-coupling substance combination contg. (diaminophenyl)acrylamide derivs.)

IT 364343-84-0P 364343-86-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., deprotection and amidation of)

IT 584-48-5, 1-Bromo-2,4-dinitrobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(redn. of)

IT **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer substance component in oxidative **hair** dye based on developer-coupling substance combination)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)

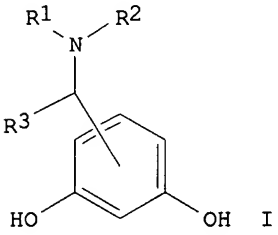



L26 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:729678 HCAPLUS
DN 135:288587

TI Aminomethyl-m-dihydroxybenzene derivatives and coloring agents for **keratin** fibers containing these compounds
PA Wella AG, Germany
SO Ger. Gebrauchsmusterschrift, 35 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07C215-46
ICS A61K007-13
CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 62
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 20110356 | U1 | 20011004 | DE 2001-20110356 | 20010622 |
| PRAI DE 2001-20110356 | | 20010622 | | |

OS MARPAT 135:288587
GI



I

AB Aminomethyl-m-dihydroxybenzene derivs. I [R1, R2 = H, C1-2 alkoxy, C1-6 alkyl, C3-6 alkenyl, C2-4 hydroxyalkyl, C3-4 dihydroxyalkyl, C2-4 aminoalkyl, C2-4 dimethylaminoalkyl, C2-4 acetylaminoalkyl, C2-4 methoxyalkyl, C2-4 ethoxyalkyl, C1-4 cyanoalkyl, C1-4 aminocarbonylalkyl, pyridylmethyl, furfuryl, thienylmethyl, substituted pyridyl, (un)substituted phenylmethyl or -Et, or R1 and R2 together with the N atom form a ring, including (un)substituted piperidino, morpholino, piperazino, pyrrolidino; R3 = H, C1-4 alkyl; preferably, R3 = H and/or one of R1 or R2 = C2-4 hydroxyalkyl, 3,4-methylenedioxyphenyl, Ph] or their physiol. compatible, water-sol. salts, useful as couplers in oxidative **hair** dyes based on a developer substance-coupling substance combination in one suitable cosmetic carrier, are claimed. In examples given, compds. I are formulated with one or more known developer substances and one or more known addnl. coupling substances to give various shades of color when applied to **hair**; e.g., a prepn. contg. 0.20 g 1,3-dihydroxy-(4-phenylaminomethyl)benzene (prepn. given) 0.15 g 1,4-benzenediamine, 0.30 g 3-methyl-4-aminophenol and 0.30 1-naphthol (formulation given) afforded red-brown **hair**.
ST dihydroxybenzene deriv prepn **hair** dye component; coupling substance oxidative **hair** dye dihydroxybenzene
IT **Hair** preparations
(dyes, oxidative; dihydroxybenzene derivs. as coupling substances in)
IT Amination
(of dihydroxybenzaldehyde)
IT Cosmetics
**Hair**

(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT **Keratins**
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT Hydroquinones
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[(3-Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71005-35-1 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-[bis(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 74918-21-1 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene 94158-14-2 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol

111451-24-2 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3 149330-25-6, 2,6-Bis[(2-hydroxyethyl)amino]toluene 164919-03-3 168092-23-7 207923-07-7, 5-Amino-2-ethylphenol 244028-58-8, 2,4-Bis[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3 364366-19-8 364366-20-1
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(addnl. coupling substance component in oxidative **hair** dye based on developer-coupling substance combination contg. dihydroxybenzene derivs.)

IT 123-30-8, 4-Aminophenol
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(amidation by, of protected (diaminophenyl)acrylic acid derivs. and use as developer substance component in oxidative **hair** dyes)

IT 95-01-2, 2,4-Dihydroxybenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(amination and subsequent redn. of)

IT 62-53-3, Aniline, reactions 107-11-9, Allylamine 110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 123-75-1, Pyrrolidine, reactions 498-63-5, 2-(Hydroxymethyl)pyrrolidine 1117-97-1, N,O-Dimethylhydroxylamine 6315-89-5, 3,4-Dimethoxyaniline 6859-99-0, 3-Hydroxypiperidine 71026-66-9, tert-Butyl 4-aminophenylcarbamate
RL: RCT (Reactant); RACT (Reactant or reagent)
(amination by, of dihydroxybenzaldehyde and subsequent redn.)

IT 14268-66-7, 3,4-Methylenedioxyaniline
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(amination of dihydroxybenzaldehyde by and use as addnl. coupling substance component in oxidative **hair** dyes)

IT 94564-78-0 150268-63-6 364365-60-6 364365-62-8 364365-63-9 364365-64-0 364365-65-1 364365-66-2 364365-67-3 364365-68-4 364365-70-8 364365-72-0 364365-74-2 364365-75-3 364365-76-4 364365-77-5 364365-78-6 364365-80-0 364365-82-2 364365-83-3 364365-84-4 364365-85-5 364365-86-6 364365-87-7 364365-88-8 364365-91-3 364365-92-4 364365-93-5 364365-94-6 364365-95-7 364365-96-8 364365-97-9 364365-99-1 364366-00-7 364366-01-8 364366-02-9 364366-04-1 364366-05-2 364366-06-3 364366-08-5 364367-06-6
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(coupling substance component in oxidative **hair** dye based on developer-coupling substance combination contg. dihydroxybenzene derivs.)

IT 2835-98-5, 2-Amino-5-methylphenol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer and addnl. coupling substance components in oxidative **hair** dyes)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-

hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 1,4-Diamino-2-chlorobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)pyrimidinone 1630-11-1 2359-52-6, 4-[Bis(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6369-59-1 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2 7575-35-1, 4-[Bis(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 135043-64-0 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1 159621-77-9 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 364343-79-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer substance component in oxidative **hair** dye based on developer-coupling substance combination)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8, 2-Chloro-6-(ethylamino)-4-nitrophenol
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(directly absorbable dye component in oxidative **hair** dye prepn.)

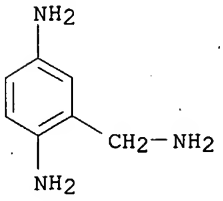
IT 364366-09-6P 364366-11-0P 364366-12-1P 364366-13-2P 364366-14-3P 364366-15-4P 364366-16-5P 364366-17-6P 364366-18-7P 364366-21-2P 364366-22-3P 364366-23-4P 364366-24-5P 364366-25-6P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as coupling substance component in oxidative **hair** dye based on developer-coupling substance combination contg. dihydroxybenzene derivs.)

IT **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(developer substance component in oxidative **hair** dye based on developer-coupling substance combination)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:729677 HCAPLUS

DN 135:288586

TI Preparation of (dihydroxyphenyl)acrylamide derivatives and compositions containing coloring agents

PA Wella AG, Germany

SO Ger. Gebrauchsmusterschrift, 52 pp.
CODEN: GGXXFR

DT Patent

LA German

IC ICM C07C235-32
ICS A61K007-13; C07D295-04; C07D227-00

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 41

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 20110355 | U1 | 20011004 | DE 2001-20110355 | 20010622 |
| PRAI DE 2001-20110355 | | 20010622 | | |

OS MARPAT 135:288586

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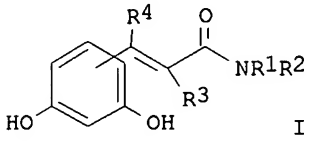

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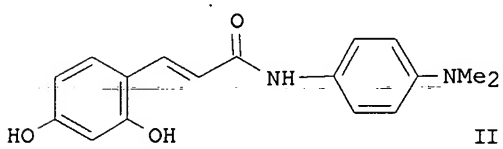

II

AB (m-dihydroxyphenyl)acrylamide derivs. I [R1, R2 = H, C1-2-alkoxy, C1-6-alkyl, C3-6-alkenyl, C2-4-hydroxyalkyl, C3-4-dihydroxyalkyl,

C2-4-aminoalkyl, C2-4-dimethylaminoalkyl, C2-4-acetylaminoalkyl, C2-4-methoxyalkyl, C2-4-ethoxyalkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-aminocarbonylalkyl, pyridylmethyl , furfuryl, hydrogenated furfuryl, substituted pyridyl, CHR5CHR6R7, (un)substituted Ph, aminopyrazolyl; R1R2N = (un)substituted piperidine, morpholine, the formulpiperazine, pyrrolidine; R3, R4 = H, C1-4-alkyl; R5 = H, CO2H, CONH2; R6, R7 = H, OH, CONH2, CH2SMe, PH, hydroxyphenyl, morpholinyl, oxopyrrolidinyl, imidazolyl] or its physiol. compatible, water-sol. salts are claimed. Thus, 3-(2,4-dihydroxyphenyl)-N-[4-(dimethylamino)phenyl]acrylamide hydrochloride (II.cntdot.HCl), was prepd. from 2,4-(HO)2C6H4CHO, via hydroxyl group protection, Wittig with (MeO2C)CH:PPh3, sapon., amidation with 4-(Me2N)C6H4NH2 and deprotection. I were used in the prepn. of **hair** dye formulations and their color tints noted.

ST dihydroxyphenylacrylamide deriv prepn coloring agent

IT **Hair** preparations
(dyes, oxidative; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT Amides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(phenylacrylic; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT Coloring materials
Dyes
Stains, coloring materials
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, uses 108-45-2, 1,3-Diaminobenzene, uses 108-46-3, 1,3-Dihydroxybenzene, uses 123-30-8, 4-Aminophenol 137-19-9 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)-pyrimidinone 1630-11-1 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthyl acetate 5862-80-6 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Amino-3-hydroxypyridine

17672-22-9, 2-Amino-6-methylphenol 26011-57-4 26021-57-8 26455-21-0, N-[3-(Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichlorophenol 45514-38-3 53222-92-7, 3-Amino-2-methylphenol 54381-16-7 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5** 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71077-37-7 71500-41-9 71500-42-0 73793-80-3 74918-21-1, 1,3-Bis (2,4-diaminophenoxy)propane tetrahydrochloride 76045-64-2 78661-33-3 79352-72-0, 4-Amino-2-(aminomethyl)phenol 80592-80-9 80592-81-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 83763-48-8 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 93841-25-9 94082-77-6 94158-14-2 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3 104752-51-4 105293-89-8 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8 126335-43-1 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5 131657-78-8 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 149330-25-6 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9 207923-07-7 217311-43-8 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3 329320-36-7 337906-36-2 364327-98-0 364328-00-7 364328-01-8 364328-08-5

RL: NUU (Other use, unclassified); USES (Uses)
(oxidative **hair** dye component; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 111526-93-3P 128327-79-7P 364326-43-2P 364326-44-3P 364326-45-4P
364326-46-5P 364326-47-6P 364326-48-7P 364326-49-8P 364326-50-1P
364326-51-2P 364326-52-3P 364326-53-4P 364326-54-5P 364326-55-6P
364326-56-7P 364326-57-8P 364326-58-9P 364326-59-0P 364326-60-3P
364326-61-4P 364326-62-5P 364326-63-6P 364326-64-7P 364326-66-9P
364326-67-0P 364326-68-1P 364326-69-2P 364326-70-5P 364326-71-6P
364326-72-7P 364326-73-8P 364326-74-9P 364326-75-0P 364326-76-1P
364326-77-2P 364326-78-3P 364326-79-4P 364326-80-7P 364326-81-8P
364326-82-9P 364326-83-0P 364326-84-1P 364326-85-2P 364326-86-3P
364326-87-4P 364326-88-5P 364326-89-6P 364326-90-9P 364326-91-0P
364326-92-1P 364326-93-2P 364326-94-3P 364326-95-4P 364326-96-5P
364326-98-7P 364326-99-8P 364327-00-4P 364327-01-5P 364327-02-6P
364327-03-7P 364327-04-8P 364327-05-9P 364327-06-0P 364327-07-1P
364327-08-2P 364327-09-3P 364327-10-6P 364327-11-7P 364327-12-8P

364327-13-9P 364327-14-0P 364327-15-1P 364327-16-2P 364327-17-3P
364327-18-4P 364327-19-5P 364327-20-8P 364327-21-9P 364327-22-0P
364327-23-1P 364327-24-2P 364327-25-3P 364327-26-4P 364327-27-5P
364327-29-7P 364327-30-0P 364327-31-1P 364327-32-2P 364327-33-3P
364327-34-4P 364327-35-5P 364327-36-6P 364327-37-7P 364327-38-8P
364327-39-9P 364327-40-2P 364327-41-3P 364327-42-4P 364327-43-5P
364327-44-6P 364327-45-7P 364327-46-8P 364327-47-9P 364327-48-0P
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364327-54-8P 364327-55-9P 364327-56-0P 364327-57-1P 364327-58-2P
364327-59-3P 364327-61-7P 364327-62-8P 364327-63-9P 364327-64-0P
364327-65-1P 364327-66-2P 364327-67-3P 364327-68-4P 364327-69-5P
364327-70-8P 364327-71-9P 364327-72-0P 364327-73-1P 364327-74-2P
364327-75-3P 364327-76-4P 364327-77-5P 364327-78-6P 364327-79-7P
364327-80-0P 364327-81-1P 364327-82-2P 364327-83-3P 364327-84-4P
364327-85-5P 364327-86-6P 364327-87-7P 364327-89-9P 364327-90-2P
364327-91-3P 364327-92-4P 364327-93-5P 364327-94-6P 364327-95-7P
364328-09-6P 364328-10-9P 364328-11-0P 364328-12-1P 364328-13-2P
364328-14-3P 364328-15-4P 364328-16-5P 364328-17-6P 364328-18-7P
364328-19-8P
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(oxidative **hair** dye component; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

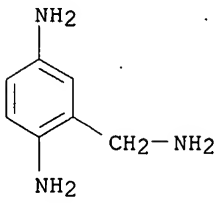
IT 364328-20-1 364328-21-2
RL: NUU (Other use, unclassified); USES (Uses)
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 62-53-3, Aniline, reactions 74-89-5, Methylamine, reactions 95-01-2, 2,4-Dihydroxybenzaldehyde 99-57-0, 2-Hydroxy-5-nitroaniline 107-11-9, Allylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 141-43-5, (2-Hydroxyethyl)amine, reactions 498-63-5, 2-(Hydroxymethyl)pyrrolidine 616-30-8, 3-Amino-1,2-propanediol 1001-53-2, N-Acetylethylenediamine 2605-67-6, [(Methoxycarbonyl)methylene]triphenyl[phosphorane 5382-16-1, 4-Hydroxypiperidine 6315-89-5, 3,4-Dimethoxyaniline 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6859-99-0, 3-Hydroxypiperidine 25739-59-7 25808-30-4, (Methylamino)acetonitrile hydrochloride 26153-38-8, 3,5-Dihydroxybenzaldehyde 40499-83-0, 3-Hydroxypyrrolidine 71026-66-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 128837-29-6P 268233-10-9P, 3,5-Bis(ethoxymethoxy)benzaldehyde 364328-02-9P 364328-03-0P 364328-04-1P 364328-05-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT **67199-87-5**
RL: NUU (Other use, unclassified); USES (Uses)
(oxidative **hair** dye component; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:672048 HCAPLUS
DN 135:246996
TI Preparation of 2,5-Diamino-benzaldehyde-derivates and their usage in **hair** dyes
PA Wella A.-G., Germany
SO Ger. Gebrauchsmusterschrift, 38 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07C251-80
ICS A61K007-13; C07C281-08; C07C337-04; C07C317-00; C07C327-28; C07C255-00
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 24
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 20108608 | U1 | 20010913 | DE 2001-20108608 | 20010523 |
| PRAI DE 2001-20108608 | | 20010523 | | |

OS MARPAT 135:246996
AB The invention concerns the synthesis of 2,5-Diamino-benzaldehyde-derivs. and their usage in **hair** dye compns. as developers along with coupling agents and optionally direct dyes. Thus a **hair** dye contained (g): 1,4-diamino-2-(piperidine-1-yl-iminomethyl)-benzene 0.30; 3-methyl-4-aminophenol 0.30; 1-naphthol 0.30; 1,3-dihydroxy benzene 0.18; potassium oleate 10.0; ammonia (22% soln.) 10.0; ethanol 10; ascorbic acid 0.3; water to 100. Upon usage, 30 g of the compn. were mixed with 30 g 6% hydrogen peroxide soln.; after 30 min the dye was rinsed, the resulting color was reddish brown.
ST Diamino benzaldehyde derivs developer oxidative **hair** dye
IT Dyes
(direct; prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)
IT **Hair** preparations
(dyes, oxidative; prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)
IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylamino-phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,3-Benzenediol, 4,6-dichloro 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene

619-05-6, 3,4-Diamino-benzoic acid 770-25-2 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 1-Naphthalenol, 2-methyl-, acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 7722-84-1, Hydrogen peroxide, biological studies 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichloro-phenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7 71500-41-9 71500-42-0 75513-65-4 76045-64-2 78661-33-3 80592-80-9 80592-81-0 81892-72-0 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6 104752-50-3 104752-51-4, 1,3-Benzenediol, 4,5-dichloro-2-methyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 142082-56-2 146658-65-3 168092-23-7 207923-07-7, Phenol, 5-amino-2-ethyl- 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3 359866-26-5 359866-36-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

IT **359866-18-5P**
RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

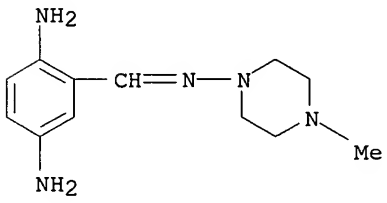
IT **359865-88-6P 359865-89-7P 359865-90-0P**
**359865-91-1P 359865-92-2P 359865-93-3P**
**359865-94-4P 359865-95-5P 359865-96-6P**
**359865-97-7P 359865-98-8P 359865-99-9P**
**359866-00-5P 359866-01-6P 359866-02-7P**
**359866-03-8P 359866-04-9P 359866-06-1P**
**359866-07-2P 359866-08-3P 359866-09-4P**
**359866-10-7P 359866-11-8P 359866-12-9P**
**359866-13-0P 359866-14-1P 359866-15-2P**
**359866-16-3P 359866-17-4P 359866-20-9P**
**359866-22-1P 359866-24-3P 360067-94-3P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

IT 54-85-3, Isonicotinic acid hydrazide 75-04-7, Ethylamine, reactions 80-17-1, Benzene sulfonic acid hydrazide 100-63-0, Phenylhydrazine 368-78-5, 3-Trifluoromethyl phenylhydrazine 536-40-3, 4-Chlorobenzoic acid hydrazide 536-89-0, m-Tolylhydrazine 537-47-3, 4-Phenylsemicarbazide 553-53-7, Nicotinic acid hydrazide 606-26-8, 2-Nitro benzoic acid hydrazide 613-94-5, Benzoic acid hydrazide 618-40-6, N-Methyl-N-phenylhydrazine 636-97-5, 4-Nitro benzoic acid hydrazide 637-80-9, Hydrazineacetic acid ethylester 936-02-7, 2-Hydroxy benzoic acid hydrazide 1068-57-1, Acetic acid hydrazide 1576-35-8, Toluene-4-sulfonic acid hydrazide 2213-43-6, Piperidine-1-amine 2361-27-5, Thiophene-2-carboxylic acid hydrazide 3326-71-4, Furan-2-carboxylic acid hydrazide 3619-22-5, 4-Methyl benzoic acid hydrazide 4114-31-2, Hydrazinecarboxylic acid ethyl ester 4319-49-7, Morpholine-4-amine 5351-23-5, 4-Hydroxybenzoic acid hydrazide 5351-69-9, 4-Phenylthiosemicarbazide 5814-05-1, 2-Chlorobenzoic acid hydrazide 6304-39-8, Caprylic acid hydrazide 13431-34-0, 4-Ethylthiosemicarbazide 21185-13-7, 1-Methylthiosemicarbazide 24424-99-5, Di-tert-butyl-dicarbonate 60075-23-2, (3,4-Dimethoxyphenyl) acetic acid hydrazide 97108-50-4, 2,5-Difluorophenylhydrazine 187035-29-6, 2-Methoxymethyl-pyrrolidin-1-amine 244104-66-3 359866-37-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

IT 244104-65-2P 325953-36-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

IT **359866-18-5P**
RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

RN 359866-18-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[[(4-methyl-1-piperazinyl)imino]methyl]- (9CI) (CA INDEX NAME)




L26 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:594358 HCAPLUS
DN 135:185186
TI **Hair** dye formulations containing 1-(3'-aminopropoxy)-2,4-diaminobenzene and developers
PA Wella A.-g., Germany
SO Ger. Gebrauchsmusterschrift, 29 pp.

CODEN: GGXXFR
DT Patent
LA German
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 20107481 | U1 | 20010816 | DE 2001-20107481 | 20010502 |
| PRAI | DE 2001-20107481 | | 20010502 | | |

OS MARPAT 135:185186
AB **Hair** dye formulations contain a developer and coupler combination. The coupler substance can be 1-(3'-aminopropoxy)-2,4-diaminobenzene and/or its salt, and the developer is selected from compds. such as a p-phenylenediamine, a 4,5-diamino-1H-pyrazole, or a 4-aminophenol. Thus, 1-(3'-aminopropoxy)-2,4-diaminobenzene-3HCl was prepd. by the redn. of N-[2-(3'-aminopropoxy)-5-nitrophenyl]acetamide in the presence of palladium-charcoal and acidification with HCl. A **hair** dye formulation contained the above compd. 0.77, EtOH 10.00, 28% soln. of Na lauryl ether sulfate 10.00, 25% aq. soln. of NH3 10.00, ascorbic acid 0.30, 3-methyl-4-aminophenol 0.31 (developer) and water to 100 g. The formulation imparted a purple-red color to the **hair**.
ST aminopropoxydiaminobenzene **hair** dye developer; diaminobenzene aminopropoxy **hair** dye developer; aminobenzene aminopropoxy **hair** dye developer
IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amino; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)
IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(diamines, arom.; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)
IT **Hair** preparations
(dyes; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)
IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye formulations contg. aminopropoxydiaminobenzene and developers)
IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(phenolic; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)
IT 90-15-3, 1-Naphthalenol 95-88-5 100-01-6, biological studies
108-46-3, 1,3-Benzenediol, biological studies 123-30-8 533-31-3,
1,3-Benzodioxol-5-ol 591-27-5 608-25-3 615-50-9 1004-74-6,
Pyrimidinetetramine 2835-95-2 2835-96-3 2835-98-5 2835-99-6
5392-28-9 5697-02-9 6358-09-4 19434-42-5 20055-01-0 26455-21-0
28365-08-4 45514-38-3 54381-16-7 70643-20-8 73793-79-0
73793-80-3 79352-72-0 81329-90-0 83732-72-3 84540-50-1
93841-24-8 93841-25-9 96886-30-5 104333-09-7 109942-17-8,
[1,1'-Biphenyl]-2,5-diamine 126335-43-1 131311-66-5 131657-78-8
132026-22-3 132026-42-7 155601-16-4 155601-17-5 155601-30-2

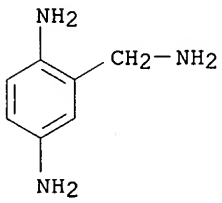
157469-54-0 157469-73-3 168202-61-7 173994-78-0 217311-43-8
220264-58-4 232284-09-2 244104-61-8 244104-62-9 246244-41-7
306959-12-6 329320-36-7 337906-36-2 337906-38-4 344904-47-8
349649-41-8 349649-42-9 349649-43-0 349649-44-1 **349649-46-3**
354762-87-1 354762-88-2 354807-04-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

IT 76214-09-0P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

IT 76214-07-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(**hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

IT **349649-46-3**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

RN 349649-46-3 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)-, dihydrochloride (9CI) (CA INDEX NAME)




●2 HCl

L26 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:563780 HCAPLUS
DN 135:138694
TI Oxidation bases with a guanidine chain, process for their preparation, their use for oxidation dyeing of **keratinous** fibers, dyeing compositions and dyeing processes
IN Bordier, Thierry; Philippe, Michel
PA L'Oreal S.A., Fr.
SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DT Patent
LA French
IC ICM C07C281-16
ICS C07C281-18; A61K007-13
CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic

Sensitizers)
Section cross-reference(s): 40, 62

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 1120405 | A2 | 20010801 | EP 2001-400112 | 20010116 |
| | EP 1120405 | A3 | 20021127 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | FR 2804428 | A1 | 20010803 | FR 2000-1055 | 20000127 |
| | FR 2804428 | B1 | 20020322 | | |
| | JP 2001240587 | A2 | 20010904 | JP 2001-18269 | 20010126 |
| | US 2001034913 | A1 | 20011101 | US 2001-770471 | 20010129 |
| PRAI | FR 2000-1055 | A | 20000127 | | |

OS CASREACT 135:138694; MARPAT 135:138694

AB The bases useful for dyeing **keratinous** fibers and esp. human hairs, are benzene compds. bearing guanidine groups such as C6H2(Z)(X1)(X2)AN:C(NH2)2 (X1, X2 = OH, NHR1, NR1R2 provided that X1 and X2 are not OH group at the same time; R1, R2 = H, C1-8 alkyl, C1-8 monohydroxyalkyl, C2-8 polyhydroxyalkyl, C2-8 aminoalkyl, C1-4 monoalkyl-C1-4 aminoalkyl, etc.; A = divalent linking groups of -CH:N- or -CH2NH-; Z = H, halogen, other substituents, etc.) or their acid salts. Thus, mixing a dissoln. of 9 g 2-hydroxy-5-nitrobenzaldehyde in 200 mL EtOH with 5.95 g aminoguanidine hydrochloride and 7.6 mL triethylamine and heating at 45.degree. for 3 h gave 2-hydroxy-5-nitrobenzylideneaminoguanidine monohydrate which was converted into a 5-amino-2-hydroxybenzylideneaminoguanidine dihydrochloride salt by nitro group redn. and salt forming with HCl soln.

ST oxidn dyeing **keratinous** fiber hydroxyaminobenzylidene aminoguanidine; **hair** dyeing aminohydroxybenzylidene aminoguanidine hydrochloride

IT Dyes
(basic; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT **Hair**
(human; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT Synthetic fibers
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(**keratin**; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT 352230-03-6P 352230-04-7P **352230-05-8P** 352230-06-9P 352230-07-0P 352230-08-1P 352230-09-2P 352230-10-5P 352230-11-6P 352230-12-7P 352230-13-8P 352230-14-9P 352230-15-0P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(basic dye; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT 108-46-3, 1,3-Dihydroxybenzene, reactions 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 26021-57-8, 6-Hydroxybenzomorpholine 55302-96-0, 5-N-(.beta.-Hydroxyethyl)amino-2-methylphenol 66422-95-5
RL: RCT (Reactant); RACT (Reactant or reagent)

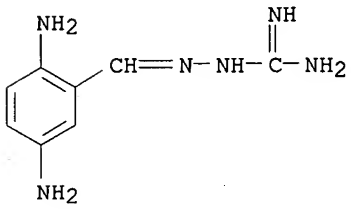
(coupler; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT 23817-65-4P 290839-31-5P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 1937-19-5, Aminoguanidine hydrochloride 42454-06-8, 5-Hydroxy-2-nitrobenzaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT **352230-05-8P**
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(basic dye; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

RN 352230-05-8 HCAPLUS
CN Hydrazinecarboximidamide, 2-[(2,5-diaminophenyl)methylene]- (9CI) (CA INDEX NAME)



L26 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:525892 HCAPLUS
DN 135:111700
TI **Hair** dye compositions containing diaminophenoxypropanol and developers
IN Braun, Hans-Juergen
PA Wella Aktiengesellschaft, Germany
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

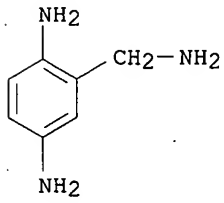
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2001051019 | A1 | 20010719 | WO 2000-EP12847 | 20001216 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 10000460 A1 20010823 DE 2000-10000460 20000107
EP 1158954 A1 20011205 EP 2000-985176 20001216
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO
BR 2000008850 A 20011226 BR 2000-8850 20001216
JP 2003519646 T2 20030624 JP 2001-551443 20001216
US 6503282 B1 20030107 US 2001-913553 20010815
PRAI DE 2000-10000460 A 20000107
WO 2000-EP12847 W 20001216
OS MARPAT 135:111700
AB A method for dyeing **hair** is based on a developing substance and a coupler. 3-(2,4-Diaminophenoxy)-1-propanol can be as the coupler and a p-phenylenediamine deriv. of general formula and/or a 4,5-diamino-1H-pyrazole deriv. and/or a p-aminophenol deriv. as the developing substances. The invention also relates to a method for oxidatively dyeing the **hair**. Thus, a **hair** dye formulation contained EtOH 100, 28% soln. of sodium lauryl ether sulfate 10.00, 25% aq. NH3 soln. 10.00, ascorbic acid 0.30, and water to 100 g, 3-(2,4-diaminophenoxy)-1-propanol-2HCl 2.5 and 2-(2-hydroxyethyl)-p-phenylenediamine sulfate 2.5 mmol.
ST diaminophenoxypropanol coupler developer **hair** dye; propanol diaminophenoxy **hair** dye
IT 90-15-3, 1-Naphthalenol 95-88-5 106-50-3, 1,4-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 123-30-8 533-31-3, 1,3-Benzodioxol-5-ol 591-27-5 608-25-3 615-50-9 2835-95-2 2835-98-5 2835-99-6 5697-02-9 6358-09-4 19434-42-5 26455-21-0 28365-08-4 45514-38-3 63886-75-9 70643-20-8 73793-79-0 73793-80-3 78661-34-4 79352-72-0 81329-90-0 83732-72-3 83763-48-8 84540-50-1 93841-24-8 93841-25-9 97902-51-7 104333-09-7 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 126335-43-1 131311-66-5 131657-78-8 132026-22-3 132026-42-7 155601-16-4 155601-17-5 155601-30-2 157469-54-0 157469-73-3 168202-61-7 173994-78-0 217311-43-8 220264-58-4 232284-09-2 244104-61-8 246244-41-7 306959-12-6 307493-94-3 329320-36-7 337906-36-2 337906-38-4 349649-41-8 349649-42-9 349649-43-0 349649-44-1 349649-45-2 **349649-46-3**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye compns. contg. diaminophenoxypropanol and developers)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Bristol-Myers Co; 3-(2, 4-Diaminophenoxy)-1, 2-propane diol - useful as oxidation coupler for hair dyes
(2) Bristol-Myers Co; RESEARCH DISCLOSURE 1980, V195(013)
(3) Henkel Kgaa; DE 19757510 A 1999 HCAPLUS
(4) Henkel Kgaa; WO 9929285 A 1999 HCAPLUS
(5) Henkel Kgaa; WO 9966890 A 1999 HCAPLUS
(6) Lim, M; US 5980584 A 1999 HCAPLUS
IT **349649-46-3**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye compns. contg. diaminophenoxypropanol and

developers)
RN 349649-46-3 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)-, dihydrochloride (9CI) (CA INDEX NAME)

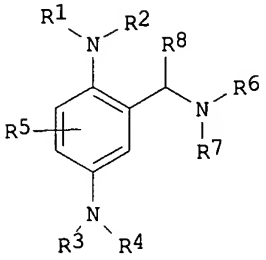


●2 HCl

L26 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:524685 HCAPLUS
DN 135:111699
TI **Hair** dyes containing 2-aminoalkyl-1,4-diaminobenzene derivatives
IN Chassot, Laurent; Baun, Hans-Jurgen
PA Wella Aktiengesellschaft, Germany
SO Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C07C211-51
ICS A61K007-13; C07D215-38; C07D307-52; C07D295-12; C07D241-04; C07D307-12; C07C233-36; C07C239-20; C07C215-14; C07C217-08; C07C215-76
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 1116711 | A2 | 20010718 | EP 2000-115071 | 20000727 |
| | EP 1116711 | A3 | 20010926 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2001199941 | A2 | 20010724 | JP 2000-364297 | 20001130 |
| | BR 2000006380 | A | 20010717 | BR 2000-6380 | 20001218 |
| PRAI | DE 1999-19961272 | A | 19991218 | | |

OS MARPAT 135:111699
GI



I

AB The invention concerns oxidative **hair** dyes that contain as developers 2-aminoalkyl-1,4-diaminobenzene derivs. or their physiol. compatible water sol. salts of the formula (I), where R1-R7 are defined. The **hair** dye compns. further contain another developer, e.g. 1,4-diamiaminobenzene, 2,5-diaminotoluene; coupling agents, e.g. 2,6-diaminopyridine; and at least one direct dye. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with DMF in the presence of methyllithium and butyllithium to (2-formyl-1,4-phenylene)biscarbamic acid di(tert-butyl)ester. This compd. was reacted with ethylamine and the hydrochloride of the formed substance was prepd. The obtained 2-ethylaminomethy-1,4-diamino benzene hydrochloride was used (0.0125 mmol) in a **hair** dye, that further contained: 1,3-dihydroxybenzene (coupling agent) 0.0125 mmol; potassium oleate (8% aq. soln.) 0.01 g; ammonia (22% aq. soln.) 0.01 g; ethanol 0.01 g; ascorbic acid 0.003 g; water to 1 g. The dye resulted a light blond color.

ST aminoalkyl diaminobenzene deriv oxidative **hair** dye

IT Dyes
(direct; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT **Hair** preparations
(dyes, oxidative; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT Coupling agents
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 615-50-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(2,5-Diaminotoluene sulfate; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 28365-08-4 53347-10-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(direct dye; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-70-5, 2,5-Diaminotoluene 95-88-5, 1,3-Benzenediol, 4-chloro- 99-07-0, 3-Dimethylaminophenol 106-50-3, 1,4-Diaminobenzene, biological studies 106-50-3D, 1,4-Benzenediamine, 2-aminoalkyl derivs., biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2,

2,7-Dihydroxynaphthalene 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthyl-acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine 26455-21-0, N-(3-Dimethylamino)phenylurea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichloro-phenol 53222-92-7, 3-Amino-2-methylphenol 54381-16-7 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine-dihydrochloride 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71500-41-9 71500-42-0 74918-21-1, 1,3-Bis(2,4-Diaminophenoxy)propane-tetrahydrochloride 76045-64-2 78661-33-3 80592-80-9 80592-81-0 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 83763-48-8 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 94082-77-6 104752-50-3 104752-51-4 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0 122481-67-8 135043-64-0, 4-Amino-2-aminomethylphenol-dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 149330-25-6 155601-30-2 168092-23-7 207923-07-7 217311-43-8 350482-01-8 350482-02-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

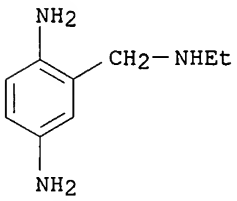
IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT **350481-06-0P 350481-07-1P 350481-08-2P**
**350481-09-3P 350481-10-6P 350481-11-7P**
350481-12-8P **350481-13-9P 350481-14-0P**
**350481-15-1P 350481-16-2P 350481-17-3P**
**350481-18-4P 350481-19-5P 350481-20-8P**
**350481-21-9P 350481-22-0P 350481-23-1P**
**350481-24-2P 350481-25-3P 350481-26-4P**
**350481-27-5P 350481-28-6P 350481-29-7P**
**350481-30-0P 350481-31-1P 350481-32-2P**
**350481-33-3P 350481-34-4P 350481-35-5P**
**350481-36-6P 350481-37-7P 350481-38-8P**
**350481-39-9P 350481-40-2P 350481-41-3P**
**350481-42-4P 350481-43-5P 350481-44-6P**
**350481-45-7P 350481-46-8P 350481-47-9P**
**350481-48-0P 350481-49-1P 350481-50-4P**
**350481-51-5P 350481-52-6P 350481-53-7P**
**350481-54-8P 350481-55-9P 350481-56-0P**
**350481-57-1P 350481-58-2P 350481-59-3P**

**350481-60-6P 350481-61-7P 350481-62-8P**
**350481-63-9P 350481-64-0P 350481-65-1P**
**350481-66-2P 350481-67-3P 350481-68-4P**
**350481-69-5P 350481-70-8P 350481-71-9P**
**350481-72-0P 350481-73-1P 350481-74-2P**
**350481-75-3P 350481-76-4P 350481-77-5P**
**350481-78-6P 350481-79-7P 350481-80-0P**
**350481-81-1P 350481-82-2P 350481-83-3P**
**350481-84-4P 350481-85-5P 350481-86-6P**
**350481-87-7P 350481-88-8P 350481-89-9P**
**350481-90-2P 350481-91-3P 350481-92-4P**
**350481-93-5P 350481-94-6P 350481-95-7P**
**350481-96-8P 350481-99-1P 350482-00-7P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 59-51-8, Methionine 62-53-3, Aniline, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, Thiophene-2-carbaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9, 4-Amino-N,N-dimethylaniline 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine 108-00-9, 2-Dimethylamino ethylamine 109-01-3 109-55-7, 3-Dimethylamino propylamine 109-83-1, 2-Methylamino ethanol 109-85-3, 2-Methoxy ethylamine 110-58-7, Pentylamine 110-73-6, 2-Ethylamino-ethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 364-73-8, Benzene, 4-bromo-1-fluoro-2-nitro- 364-74-9, 1,4-Difluoro-2-nitrobenzene 364-76-1 437-83-2, 3-Fluoro-2-methoxy aniline 446-35-5, 1,3-Difluoro-4-nitrobenzene 455-14-1, 4-Trifluoromethyl aniline 498-63-5, Prolinol 500-22-1, Pyridine-3-carbaldehyde 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 579-72-6, 2-Dimethylaminobenzaldehyde 587-04-2, 3-Chlorobenzaldehyde 590-86-3, 3-Methylbutyraldehyde 609-36-9, Proline 616-30-8, 3-Amino-1,2-propane diol 617-45-8, Aspartic acid 617-89-0, Furfurylamine 765-30-0, Cyclopropylamine 872-85-5, Pyridine-4-carbaldehyde 1117-97-1, O,N-Dimethyl-hydroxylamine 1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexane carbaldehyde 2454-37-7, 3-(1-Hydroxyethyl)-aniline 2516-47-4, Aminomethyl cyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0, 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6, 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0, Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6, 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxy aniline 6859-99-0, 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitro benzoic acid 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol 14268-66-7, 3,4-Methylene dioxyaniline 24424-99-5, Di-tert-butyl dicarbonate 25739-59-7 35303-76-5, 4-(2-Aminoethyl)-benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidino benzaldehyde 68621-88-5 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 244104-65-2P 325953-36-4P 350481-97-9P 350481-98-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT **350481-06-0P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
RN 350481-06-0 HCAPLUS
CN 1,4-Benzenediamine, 2-[(ethylamino)methyl]-, hydrochloride (9CI) (CA INDEX NAME)




●x HCl

L26 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:283751 HCAPLUS
DN 134:300614
TI Direct **hair** dyes containing hydroxyanthraquinones
IN Rose, David; Hoeffkes, Horst; Meinigke, Bernd
PA Henkel Kommanditgesellschaft auf Aktien, Germany
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA German
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2001026615 | A2 | 20010419 | WO 2000-EP9684 | 20001004 |
| | WO 2001026615 | A3 | 20011108 | | |
| | W: AU, JP, US | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | DE 19949034 | A1 | 20010419 | DE 1999-19949034 | 19991012 |
| | EP 1231889 | A2 | 20020821 | EP 2000-972674 | 20001004 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL | | | | |
| | JP 2003511401 | T2 | 20030325 | JP 2001-529406 | 20001004 |
| PRAI | DE 1999-19949034 | A | 19991012 | | |
| | WO 2000-EP9684 | W | 20001004 | | |

OS MARPAT 134:300614
AB Coloring and toning agents for human **hair**, comprise at least 1 hydroxyanthraquinone deriv. as a direct dye, in a cosmetically acceptable

vehicle. The inventive agents permit **hair** coloring with outstanding fastness. Thus, a **hair** cream contained cetearyl alc. 1.00, fatty alc. mixt. based on coconut oil 1.00, Akypo RLM45N 1.10, propylparaben 0.05, methylparaben 0.15, and water 70.00 g. The 2nd part of the formulation comprised ammonium sulfate 1.00, direct dye of the invention 1.00, 25% NH3 soln. to pH 9.0, and water 10.00 g. The 2 parts were mixed to give a **hair** dye formulation.

ST hydroxyanthraquinone **hair** dye phenol; anthraquinone **hair** dye phenol

IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amino; direct **hair** dyes contg. hydroxyanthraquinones)

IT Polyelectrolytes
(anionic; direct **hair** dyes contg. hydroxyanthraquinones)

IT Polyelectrolytes
(cationic; direct **hair** dyes contg. hydroxyanthraquinones)

IT Anthraquinone dyes
Surfactants
(direct **hair** dyes contg. hydroxyanthraquinones)

IT Phenols, biological studies
Polymers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(direct **hair** dyes contg. hydroxyanthraquinones)

IT **Hair** preparations
(dyes, oxidative; direct **hair** dyes contg. hydroxyanthraquinones)

IT **Hair** preparations
(dyes; direct **hair** dyes contg. hydroxyanthraquinones)

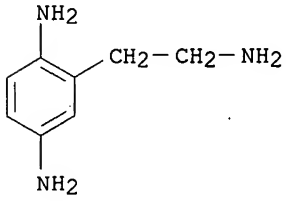
IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(naphthols; direct **hair** dyes contg. hydroxyanthraquinones)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(phenolic; direct **hair** dyes contg. hydroxyanthraquinones)

IT 83-56-7, 1,5-Dihydroxynaphthalene 90-15-3, 1-Naphthol 95-70-5, p-Toluenediamine 95-88-5, 4-ChloroResorcinol 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 123-30-8, p-Aminophenol 488-87-9, 2,5-DiMethylresorcinol 504-15-4, 5-Methylresorcinol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 2-Methylresorcinol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 2835-95-2, 5-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 16867-03-1, 2-Amino-3-hydroxypyridine 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 79352-72-0, 2-Aminomethyl-4-aminophenol 84540-50-1, 2-Chloro-6-methyl-3-aminophenol 251450-62-1, 2,6-Dihydroxy-3,4-diaminopyridine 334884-66-1 334884-68-3 334884-70-7 334884-72-9 334884-74-1 334884-76-3 334884-78-5 334884-80-9 334884-82-1 334884-84-3 **334884-86-5**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(direct **hair** dyes contg. hydroxyanthraquinones)

IT **334884-86-5**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(direct **hair** dyes contg. hydroxyanthraquinones)
RN 334884-86-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(2-aminoethyl)- (9CI) (CA INDEX NAME)

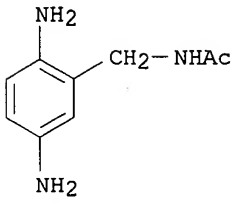


L26 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:239829 HCAPLUS
DN 134:267732
TI Production of 2-(aminomethyl)-1,4-diaminobenzene and its salts and their use in oxidative **hair** dyes
IN Goettel, Otto; Pirrello, Aline; Hayoz, Andre
PA Wella A.-G., Germany
SO Ger., 16 pp.
CODEN: GWXXAW
DT Patent
LA German
IC ICM C07C209-62
ICS C07C209-36; C07C211-50; A61K007-13; D06P001-38
CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 25, 62
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 19961229 | C1 | 20010405 | DE 1999-19961229 | 19991218 |
| | EP 1110942 | A2 | 20010627 | EP 2000-115959 | 20000726 |
| | EP 1110942 | A3 | 20020206 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | EP 1310479 | A1 | 20030514 | EP 2003-3356 | 20000726 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY | | | | |
| | US 6461390 | B1 | 20021008 | US 2000-668330 | 20000922 |
| | JP 2001172231 | A2 | 20010626 | JP 2000-312819 | 20001013 |
| | BR 2000005918 | A | 20010717 | BR 2000-5918 | 20001215 |
| PRAI | DE 1999-19961229 | A | 19991218 | | |
| | EP 2000-115959 | A3 | 20000726 | | |

OS CASREACT 134:267732; MARPAT 134:267732
AB 2-(Aminomethyl)-1,4-diaminobenzene or its salts [2,5-(H2N)2C6H3CH2NH2.nHX] (n = 0-3; HX = org. or inorg. acid) is obtained by first treating an 2-(acylaminomethyl)-4-nitrophenol with a haloacetamide, giving a 2-(acylaminomethyl)-4-nitrophenoxyacetamide, followed by aminolysis and redn. in the presence of HCl to the 1,4-diamino-2-(acylaminomethyl)benzene dihydrochloride, which is deacylated to 2-(aminomethyl)-1,4-diaminobenzene trihydrochloride; this may be converted to the free base (n = 0) or a salt with HX.
ST aminomethylphenylenediamine prodn oxidative **hair** dye component

IT **Hair** preparations
(dyes, oxidative; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)
IT 165120-67-2P 332097-12-8P, 2-(Acetamidomethyl)-4-nitrophenoxyacetamide
**332097-13-9P**, 2-(Acetamidomethyl)-1,4-diaminobenzene dihydrochloride
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)
IT 7722-84-1, Hydrogen peroxide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(oxidizing agent in in oxidative **hair** dyes)
IT **67199-87-5P**, 2-(Aminomethyl)-1,4-diaminobenzene
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)
IT **332097-11-7P**, 2-(Aminomethyl)-1,4-diaminobenzene trihydrochloride
**332097-14-0P**, 2-(Aminomethyl)-1,4-diaminobenzene disulfate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)
IT 79-07-2, Chloroacetamide 5804-36-4 7647-01-0, Hydrochloric acid, reactions 7664-93-9, Sulfuric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; Die Vergleichsversuche 2000
(2) Anon; J Org Chem 1983, V48, P5140
(3) Anon; Liebigs Ann d Chem 1978, P398
(4) Anon; Synthesis 1984, P85
IT **332097-13-9P**, 2-(Acetamidomethyl)-1,4-diaminobenzene dihydrochloride
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)
RN 332097-13-9 HCAPLUS
CN Acetamide, N-[(2,5-diaminophenyl)methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L26 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:114667 HCAPLUS
DN 134:183268
TI **Hair** dye compositions containing 1,4-diaminobenzenes
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella A.-G., Germany
SO Ger., 14 pp.
CODEN: GWXXAW
DT Patent
LA German
IC ICM C07C211-51
ICS C07C211-54; C07C211-56; C07C215-68; C07C215-82; C07C217-82; A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 19961274 | C1 | 20010215 | DE 1999-19961274 | 19991218 |
| | EP 1108708 | A1 | 20010620 | EP 2000-121908 | 20001007 |
| | EP 1108708 | B1 | 20030108 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | AT 230719 | E | 20030115 | AT 2000-121908 | 20001007 |
| | US 6602302 | B1 | 20030805 | US 2000-706000 | 20001103 |
| | JP 2001199942 | A2 | 20010724 | JP 2000-357603 | 20001124 |
| | BR 2000005896 | A | 20010717 | BR 2000-5896 | 20001215 |
| | US 2003110578 | A1 | 20030619 | US 2002-251765 | 20020920 |
| PRAI | DE 1999-19961274 | A | 19991218 | | |
| | US 2000-706000 | A1 | 20001103 | | |

OS MARPAT 134:183268
AB 2,5-Diamino-1-aminomethylbenzene derivs. or their water-sol. salts are useful for oxidative **hair** dyeing compns. Thus, 4-(2,5-diaminobenzylamino)aniline-HCl (I) was prepd. by the reductive coupling of 4-tert-butyloxycarbonylaminoaniline with N-(4-tert-butyloxycarbonyl-3-formylphenyl)carbamic acid tert-Bu ester and removal of the protective groups. A compn. was prepd. contg. I 0.37, 2-amino-5-methylphenol 0.18, potassium oleate 10.0, ammonia 10.0, EtOH 10.0, ascorbic acid 0.3, and water to 100 g. The above compn. with 6% H2O2 was applied to the **hair**, and the **hair** developed medium-brown color.
ST **hair** dye oxidative diaminobenzene prepn; aminobenzene

**hair** dye oxidative prepn; benzene amino **hair** dye oxidative prepn

IT **Hair** preparations
(dyes, oxidative; **hair** dye compns. contg. diaminobenzenes)

IT **Hair** preparations
(dyes; **hair** dye compns. contg. diaminobenzenes)

IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 96-91-3, 2-Amino-4,6-dinitrophenol 106-50-3, 1,4-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9, 2,5-Diaminotoluene sulfate 2835-95-2, 5-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 17672-22-9, 2-Amino-6-methylphenol 59320-13-7 **67199-87-5** 70643-20-8 74612-12-7, 2,5-Diaminotoluene hydrochloride 78886-51-8 93841-25-9 131657-78-8 **325952-85-0 325952-87-2 325952-88-3 325952-89-4 325952-90-7** 325952-91-8 325952-92-9 325952-93-0 325952-94-1 325952-95-2 325952-96-3 325952-97-4 325952-98-5 325952-99-6 325953-00-2 325953-01-3 325953-02-4 325953-03-5 **325953-04-6 325953-05-7 325953-06-8 325953-07-9 325953-08-0 325953-09-1 325953-10-4 325953-11-5 325953-12-6 325953-13-7 325953-14-8 325953-15-9 325953-16-0 325953-17-1 325953-18-2 325953-19-3 325953-20-6 325953-21-7 325953-22-8 325953-23-9 325953-24-0 325953-25-1 325953-26-2 325953-27-3 325953-28-4 325953-29-5 325953-30-8 325953-31-9 325953-32-0 325953-33-1 325953-34-2 325953-35-3**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye compns. contg. diaminobenzenes)

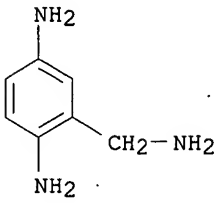
IT **325953-37-5P 325953-38-6P 325953-39-7P 325953-42-2P 325953-43-3P 325953-44-4P 325953-47-7P 325953-49-9P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**hair** dye compns. contg. diaminobenzenes)

IT 99-98-9, 4-Amino-N,N-dimethylaniline 68621-88-5 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(**hair** dye compns. contg. diaminobenzenes)

IT 244104-65-2P 325953-36-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**hair** dye compns. contg. diaminobenzenes)

IT **67199-87-5**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye compns. contg. diaminobenzenes)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:77546 HCAPLUS
DN 130:158261
TI Novel oxidative **hair** dye compositions containing cationic oxidation bases
IN Genet, Alain; Lagrange, Alain
PA L'Oreal, Fr.
SO PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DT Patent
LA French
IC ICM C07D233-54
ICS A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 28
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9903836 | A1 | 19990128 | WO 1998-FR1535 | 19980713 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | FR 2766178 | A1 | 19990122 | FR 1997-9028 | 19970716 |
| | FR 2766178 | B1 | 20000317 | | |
| | AU 9887355 | A1 | 19990210 | AU 1998-87355 | 19980713 |
| | EP 928289 | A1 | 19990714 | EP 1998-938745 | 19980713 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 2000503037 | T2 | 20000314 | JP 1999-506576 | 19980713 |
| PRAI | FR 1997-9028 | | 19970716 | | |
| | WO 1998-FR1535 | | 19980713 | | |

OS MARPAT 130:158261
AB Novel monobenzene oxidn. bases comprise at least a cationic group being selected among the aliph. chains contg. at least a quaternized unsatd. cycle. Their use for oxidn. dyeing of **keratin** fibers, dyeing compns. contg. them and oxidn. dyeing methods using them is disclosed. Thus, 1-[2-(4-aminophenylamino)-ethyl]-3-methyl-3H-imidazol-1-ium (I) was prepd. by redn. of 3-methyl-1-[2-(4-nitrophenylamino)-ethyl]-3H-imidazol-1-ium and reaction with HCl. A **hair** dye prepn. contained I 1.036, 2-methyl-5-N-(.beta.-hydroxyethyl)aminophenol 0.543 and excipient q.s. 100 g.

ST oxidative **hair** dye cationic oxidn base

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(C1-4-aliph.; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Bromates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(alkali metal salts; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aralkyl; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT **Hair** preparations
(dyes, oxidative; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Glycols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(ethers; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Ethers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(glycol; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Coupling agents
Oxidizing agents
(novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Bisphenols
Glycols, biological studies
Peroxysulfates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Salts, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(of peroxy acids; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT Group IIIA element compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(perborates; novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT 56-81-5, 1,2,3-Propanetriol, biological studies 95-55-6 108-45-2D, 1,3-Benzenediamine, derivs., biological studies 108-46-3, 1,3-Benzenediol, biological studies 123-30-8 591-27-5 591-27-5D, derivs. 7722-84-1, Hydrogen peroxide (H2O2), biological studies 55302-96-0, 2-Methyl-5-N-(.beta.-hydroxyethyl)aminophenol 66422-95-5 220159-33-1 220159-35-3 220159-36-4 220159-37-5 220159-38-6 220159-40-0 220159-41-1 220159-42-2 220159-44-4 220159-45-5 **220159-46-6** 220159-47-7 220159-49-9 220159-51-3

220159-54-6 220159-55-7 220159-57-9 220159-58-0 220159-59-1
220159-60-4 220159-62-6 220159-63-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT 220158-78-1P 220158-81-6P 220158-86-1P 220158-93-0P 220158-94-1P
220159-00-2P 220159-04-6P 220159-08-0P 220159-10-4P
**220159-12-6P** 220159-16-0P 220159-20-6P 220159-24-0P
220159-29-5P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT 77-78-1, Dimethylsulfate 79-04-9, Chloroacetyl chloride 96-20-8, 2-Amino-butan-1-ol 108-24-7 124-63-0, Mesyl chloride 142-28-9, 1,3-Dichloropropane 350-46-9, 1-Fluoro-4-nitrobenzene 369-34-6, 1,2-Difluoro-4-nitrobenzene 446-33-3, 4-Fluoro-2-methyl-1-nitrobenzene 455-88-9 616-47-7, 1-Methyl-1H-imidazole 2973-19-5, 2-Chloromethyl-4-nitrophenol 5036-48-6, 3-Imidazol-1-ylpropylamine 16588-02-6, 2-Chloro-5-nitro-benzonitrile 55743-71-0 55851-35-9 56932-44-6 59884-42-3 86771-81-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

IT 25351-89-7P 160950-38-9P 220158-79-2P 220158-82-7P 220158-84-9P
220158-85-0P 220158-87-2P 220158-89-4P 220158-90-7P 220158-92-9P
220158-96-3P 220158-98-5P 220159-01-3P 220159-03-5P 220159-05-7P
220159-07-9P 220159-09-1P 220159-11-5P 220159-13-7P 220159-14-8P
220159-15-9P 220159-17-1P 220159-18-2P 220159-21-7P 220159-25-1P
220159-26-2P 220159-28-4P 220159-30-8P 220159-32-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

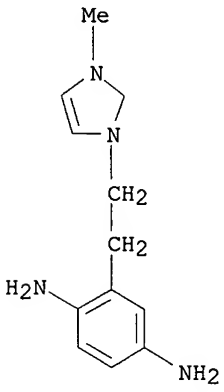
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Badische Anilin-& Soda-Farbrik Aktiengesellschaft; BE 616439 A 1962 HCAPLUS
(2) Badische Anilin- & Soda-Farbrik Aktiengesellschaft; DE 1135589 B 1962 HCAPLUS
(3) Bristol Myers Co; EP 0544400 A 1993 HCAPLUS
(4) Ciba Geigy Ag; WO 9501772 A 1995 HCAPLUS
(5) Henkel & Cie Gmbh; DE 1292784 B 1969 HCAPLUS
(6) L'OrEal; FR 1391675 A 1965
(7) Tong, L; Journal of the American Chemical Society 1960, V82(8), P1988

IT **220159-46-6**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(novel oxidative **hair** dye compns. contg. cationic oxidn. bases)

RN 220159-46-6 HCAPLUS
CN 1H-Imidazolium, 1-[2-(2,5-diaminophenyl)ethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

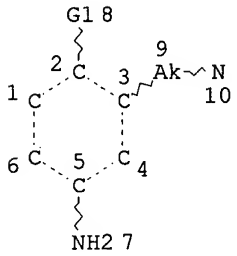


● $Cl^-$

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

more exact subset search

=> d que
L13 SCR 1568
L18 STR

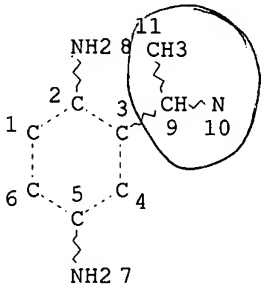


623 structures

VAR G1=OH/NH2
NODE ATTRIBUTES:
NSPEC IS RC AT 10
CONNECT IS E2 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L21 623 SEA FILE=REGISTRY SSS FUL L18 AND L13
L27 STR




25 structures

NODE ATTRIBUTES:
NSPEC IS RC AT 10
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L30 25 SEA FILE=REGISTRY SUB=L21 SSS FUL L27
L31 3 SEA FILE=HCAPLUS ABB=ON L30
L32 3 SEA FILE=HCAPLUS ABB=ON L31 AND (HAIR OR KERAT?)

3 CA references

=> d l32 1-3 all hitstr

L32 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:300263 HCAPLUS
DN 138:308942
TI Substituted 2-aminoalkyl-1,4-diaminobenzene compounds and oxidation dye precursor compositions containing them
IN Chassot, Laurent; Braun, Hans-Juergen
PA Switz.
SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 692,971.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K007-13
NCL 008405000; 008406000; 008415000
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 2003070241 | A1 | 20030417 | US 2002-146264 | 20020515 |
| | US 6436152 | B1 | 20020820 | US 2000-692971 | 20001020 |
| | US 2002189033 | A1 | 20021219 | US 2002-124149 | 20020417 |
| PRAI | DE 1999-19961272 | A | 19991218 | | |
| | US 2000-692971 | A2 | 20001020 | | |

OS MARPAT 138:308942
AB The oxidn. **hair** dye precursor compn., in the form of a soln., cream, emulsion or gel, contains (i) 0.005-20.0% by wt. of at least one coupler compd., and (ii) 0.005-20.0% by wt. of at least one developer

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compd., that includes at least one substituted 2-aminoalkyl-1,4-diaminobenzene compd. The compn. further comprises at least one direct dye. Prepn. of substituted 2-aminoalkyl-1,4-diaminobenzene compds. is also described. For example, 1,4-diamino-2-(1-butylaminoethyl)benzene hydrochloride developer was prepd. and formulated into an oxidn. **hair** dye precursor compn. with couplers 1,3-dihydroxybenzene, 1,3-diamino-4-(2-hydroxyethoxy)-benzene sulfate, 5-amino-2-methyl-phenol, or 1-naphthol to give bright light blond, gray-blue, purple, or gray-rose died **hair** colors, resp.

ST aminoalkyl diaminobenzene prepn **hair** dye developer; oxidative **hair** dye precursor coupler diaminobenzene developer

IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 533-31-3, 3,4-Methylenedioxyphenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6369-59-1, 2,5-Diaminotoluene sulfate 26455-21-0, N-(3-Dimethylamino)phenylurea 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 71005-35-1 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 84540-50-1, 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 94158-14-2 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 159621-77-9 164919-03-3 217311-43-8, 2,4-Diamino-5-fluorotoluene sulfate 282542-32-9 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 364343-79-3
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 350481-07-1P 350481-08-2P 350481-09-3P 350481-10-6P 350481-11-7P
350481-13-9P 350481-15-1P 350481-16-2P 350481-17-3P 350481-18-4P
350481-19-5P 350481-20-8P 350481-21-9P 350481-22-0P 350481-23-1P
350481-24-2P 350481-25-3P 350481-26-4P 350481-27-5P 350481-29-7P
350481-30-0P 350481-31-1P 350481-32-2P 350481-36-6P 350481-40-2P
350481-41-3P 350481-43-5P 350481-44-6P 350481-45-7P 350481-46-8P
350481-47-9P 350481-48-0P 350481-50-4P 350481-51-5P 350481-52-6P
350481-53-7P 350481-54-8P 350481-56-0P 350481-57-1P 350481-58-2P
350481-59-3P 350481-61-7P 350481-62-8P 350481-63-9P 350481-64-0P
350481-65-1P 350481-66-2P 350481-67-3P 350481-69-5P 350481-70-8P
350481-71-9P 350481-72-0P 350481-73-1P **350481-74-2P**
**350481-75-3P 350481-76-4P 350481-77-5P**
**350481-78-6P 350481-79-7P 350481-80-0P**
**350481-81-1P 350481-82-2P 350481-84-4P**
**350481-85-5P 350481-87-7P 350481-88-8P**
**350481-89-9P 350481-90-2P 350481-91-3P**
**350481-92-4P 350481-93-5P 350481-94-6P**
**350481-95-7P 350481-96-8P** 350481-99-1P 350482-00-7P
510774-40-0P 510774-41-1P 510774-42-2P 510774-43-3P 510774-44-4P
510774-45-5P 510774-46-6P 510774-47-7P 510774-48-8P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

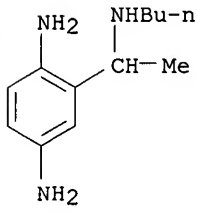
IT 56-40-6, Glycine, reactions 62-53-3, Aniline, reactions 63-68-3, L-Methionine, reactions 68-12-2, Dimethylformamide, reactions 70-47-3, Asparagine, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 96-20-8, 2-Amino-1-butanol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, 2-Thiophenecarboxaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9, 4-Amino-N,N-dimethylaniline 100-10-7, 4-Dimethylaminobenzaldehyde 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine 107-15-3, Ethylenediamine, reactions 108-00-9, 2-Dimethylaminoethylamine 109-01-3 109-55-7, 3-Dimethylaminopropylamine 109-83-1, 2-Methylaminoethanol 109-85-3, 2-Methoxyethylamine 110-58-7, Pentylamine 110-73-6, 2-Ethylaminoethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 141-43-5, Ethanolamine, reactions 147-85-3, L-Proline, reactions 364-73-8, 1-Bromo-4-fluoro-3-nitrobenzene 364-74-9 364-76-1 437-83-2, 3-Fluoro-2-methoxyaniline 446-35-5 455-14-1, 4-Trifluoromethylaniline 498-62-4, 3-Thiophenecarboxaldehyde 498-63-5, Prolinol 500-22-1, Pyridine-3-carboxaldehyde 525-72-4, 1-Methyl-6,7-dihydroxy-1,2,3,4-tetrahydroisoquinoline 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 587-04-2, 3-Chlorobenzaldehyde 590-86-3 616-30-8 617-89-0, Furfurylamine 765-30-0, Cyclopropylamine 872-85-5, Pyridine-4-carboxaldehyde 1001-53-2, N-Acetylethylenediamine 1117-97-1, O,N-Dimethylhydroxylamine 1121-60-4, Pyridin-2-carboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexanecarboxaldehyde 2454-37-7, 3-(1-Hydroxyethyl)aniline 2516-47-4, Aminomethylcyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0, 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6, 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0, Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6, 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxyaniline 6859-99-0, 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitrobenzoic acid 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol 14268-66-7, 3,4-Methylenedioxyaniline 24424-99-5, Di(tert-butyl dicarbonate) 25739-59-7 35303-76-5, 4-(2-Aminoethyl)benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidinobenzaldehyde 68621-88-5 71026-66-9 244104-65-2 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8 510774-39-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 325953-36-4P 350481-97-9P 350481-98-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT **350481-74-2P 350481-75-3P 350481-76-4P**
**350481-77-5P 350481-78-6P 350481-79-7P**
**350481-80-0P 350481-81-1P 350481-82-2P**

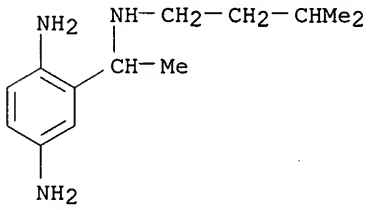
**350481-84-4P 350481-85-5P 350481-87-7P**
**350481-88-8P 350481-89-9P 350481-90-2P**
**350481-91-3P 350481-92-4P 350481-93-5P**
**350481-94-6P 350481-95-7P 350481-96-8P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

RN 350481-74-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-(butylamino)ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



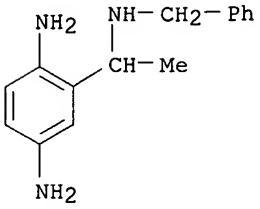
●x HCl

RN 350481-75-3 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-methylbutyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



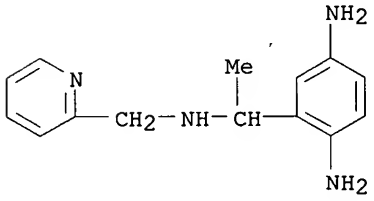
●x HCl

RN 350481-76-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(phenylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



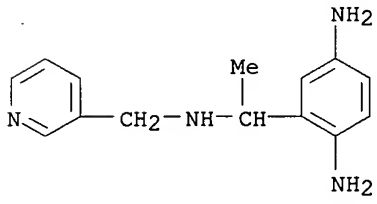
●x HCl

RN 350481-77-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-pyridinylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



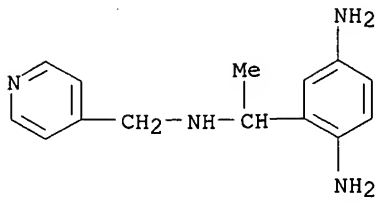
●x HCl

RN 350481-78-6 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-pyridinylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



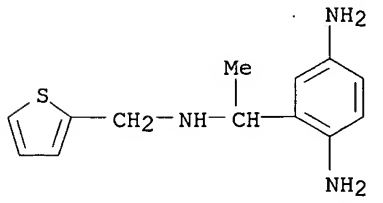
●x HCl

RN 350481-79-7 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-pyridinylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



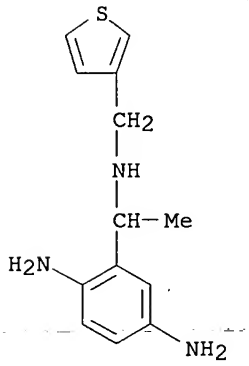
●x HCl

RN 350481-80-0 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-thienylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



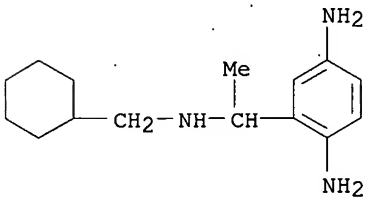
●x HCl

RN 350481-81-1 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-thienylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



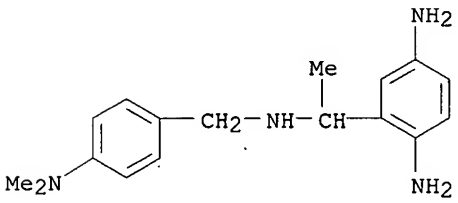
●x HCl

RN 350481-82-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(cyclohexylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



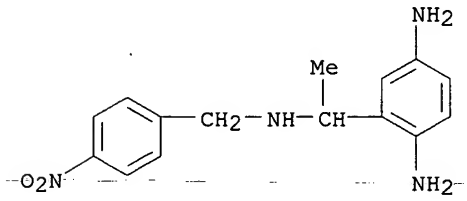
●x HCl

RN 350481-84-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[[[4-(dimethylamino)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

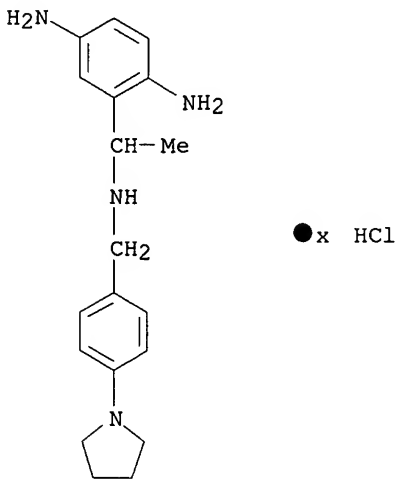
RN 350481-85-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[[(4-nitrophenyl)methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

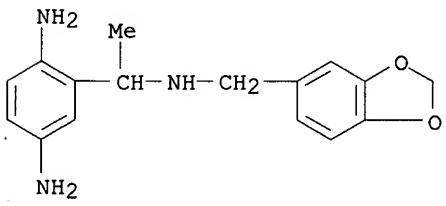
RN 350481-87-7 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[[[4-(1-pyrrolidinyl)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



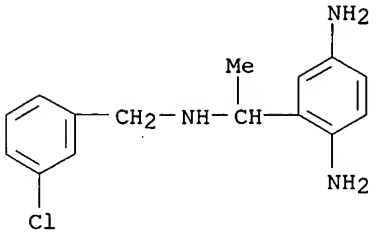
● x HCl

RN 350481-88-8 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(1,3-benzodioxol-5-ylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



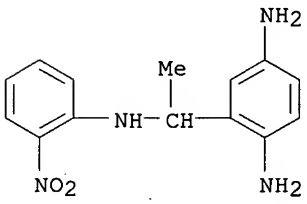
● x HCl

RN 350481-89-9 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[[(3-chlorophenyl)methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



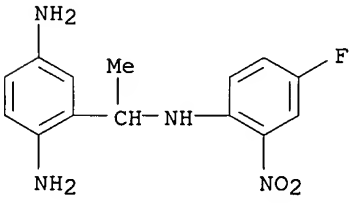
●x HCl

RN 350481-90-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



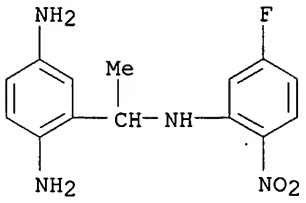
●x HCl

RN 350481-91-3 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



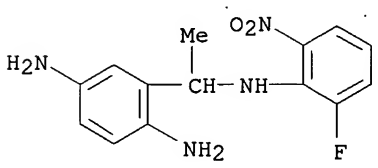
●x HCl

RN 350481-92-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(5-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



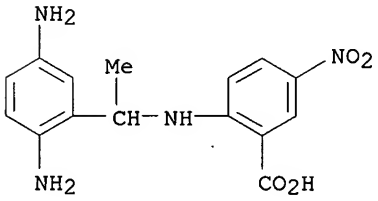
●x HCl

RN 350481-93-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-fluoro-6-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



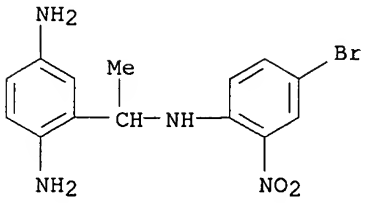
●x HCl

RN 350481-94-6 HCAPLUS
CN Benzoic acid, 2-[[1-(2,5-diaminophenyl)ethyl]amino]-5-nitro-, hydrochloride (9CI) (CA INDEX NAME)



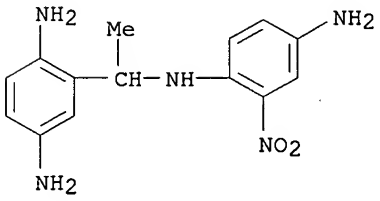
●x HCl

RN 350481-95-7 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-bromo-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-96-8 HCAPLUS
CN 1,4-Benzenediamine, N-[1-(2,5-diaminophenyl)ethyl]-2-nitro-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

L32 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:574866 HCAPLUS
DN 137:129534
TI Primary intermediates for oxidative coloration of **hair**
IN Lim, Mu-Ill; Pan, Yuh-guo
PA Clairol Incorporated, USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25

Appl

FAN.CNT 1

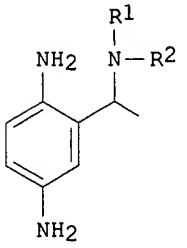
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2002058632 | A2 | 20020801 | WO 2002-US1621 | 20020118 |
| | WO 2002058632 | A3 | 20030403 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,

VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002144357 A1 20021010 US 2002-52321 20020118
PRAI US 2001-263567P P 20010123
OS MARPAT 137:129534
GI

applicants



I

AB Primary intermediates of **hair** coloring compns. of **hair** oxidative of **hair** are compds. of the formula [I]: where R1 and R2 are each individually selected from a hydrogen atom, a C1 to C3 alkyl group, a C1 to C5 mono or dihydroxyalkyl group; Ph or benzyl optionally substituted with an alkoxy group, or R1 and R2 together with the nitrogen atom to which they are attached form a piperazine, piperidine , imidazole, or morpholine ring.

ST **hair** dye primary intermediate oxidn benzenediamine

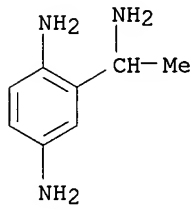
IT Oxidizing agents
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT **Hair** preparations
(dyes; 2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

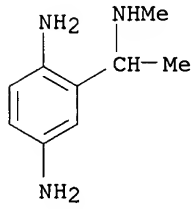
IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5, 2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1, 1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Aminopyridin-3-ol 17672-22-9, 2-Amino-6-methylphenol 26021-57-8 41927-22-4, 4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 83763-47-7 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 94082-77-6 129697-50-3 131311-66-5 155601-17-5 157469-54-0 220264-60-8 307493-94-3, 3-(2,4-Diaminophenoxy)-1-propanol 329320-36-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT **444177-65-5P 444177-66-6P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
IT 32580-41-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
IT 444177-67-7P 444177-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
IT **444177-65-5P 444177-66-6P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
RN 444177-65-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(1-aminoethyl)- (9CI) (CA INDEX NAME)



RN 444177-66-6 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-(methylamino)ethyl]- (9CI) (CA INDEX NAME)



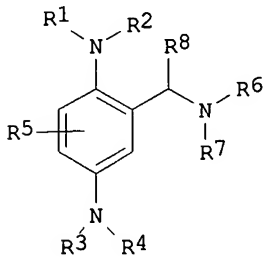
L32 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:524685 HCAPLUS
DN 135:111699
TI **Hair** dyes containing 2-aminoalkyl-1,4-diaminobenzene derivatives
IN Chassot, Laurent; Baun, Hans-Jurgen
PA Wella Aktiengesellschaft, Germany
SO Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C07C211-51
ICS A61K007-13; C07D215-38; C07D307-52; C07D295-12; C07D241-04;

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

C07D307-12; C07C233-36; C07C239-20; C07C215-14; C07C217-08; C07C215-76
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 1116711 | A2 | 20010718 | EP 2000-115071 | 20000727 |
| | EP 1116711 | A3 | 20010926 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| | JP 2001199941 | A2 | 20010724 | JP 2000-364297 | 20001130 |
| | BR 2000006380 | A | 20010717 | BR 2000-6380 | 20001218 |
| PRAI | DE 1999-19961272 | A | 19991218 | | |

OS MARPAT 135:111699
GI



I

Same as P 101

AB The invention concerns oxidative **hair** dyes that contain as developers 2-aminoalkyl-1,4-diaminobenzene derivs. or their physiol. compatible water sol. salts of the formula (I), where R1-R7 are defined. The **hair** dye compns. further contain another developer, e.g. 1,4-diamiaminobenzene, 2,5-diaminotoluene; coupling agents, e.g. 2,6-diaminopyridine; and at least one direct dye. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with DMF in the presence of methyllithium and butyllithium to (2-formyl-1,4-phenylene)biscarbamic acid di(tert-butyl)ester. This compd. was reacted with ethylamine and the hydrochloride of the formed substance was prepd. The obtained 2-ethylaminomethy-1,4-diamino benzene hydrochloride was used (0.0125 mmol) in a **hair** dye, that further contained: 1,3-dihydroxybenzene (coupling agent) 0.0125 mmol; potassium oleate (8% aq. soln.) 0.01 g; ammonia (22% aq. soln.) 0.01 g; ethanol 0.01 g; ascorbic acid 0.003 g; water to 1 g. The dye resulted a light blond color.

ST aminoalkyl diaminobenzene deriv oxidative **hair** dye
IT Dyes
(direct; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT **Hair** preparations
(dyes, oxidative; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT Coupling agents
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT 615-50-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(2,5-Diaminotoluene sulfate; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 28365-08-4 53347-10-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(direct dye; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-70-5, 2,5-Diaminotoluene 95-88-5, 1,3-Benzenediol, 4-chloro- 99-07-0, 3-Dimethylaminophenol 106-50-3, 1,4-Diaminobenzene, biological studies 106-50-3D, 1,4-Benzenediamine, 2-aminoalkyl derivs., biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthyl-acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine 26455-21-0, N-(3-Dimethylamino)phenylurea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichloro-phenol 53222-92-7, 3-Amino-2-methylphenol 54381-16-7 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine-dihydrochloride 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71500-41-9 71500-42-0 74918-21-1, 1,3-Bis(2,4-Diaminophenoxy)propane-tetrahydrochloride 76045-64-2 78661-33-3 80592-80-9 80592-81-0 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 83763-48-8 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 94082-77-6 104752-50-3 104752-51-4 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0 122481-67-8 135043-64-0, 4-Amino-2-aminomethylphenol-dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 149330-25-6 155601-30-2 168092-23-7 207923-07-7 217311-43-8 350482-01-8 350482-02-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 350481-06-0P 350481-07-1P 350481-08-2P 350481-09-3P 350481-10-6P 350481-11-7P 350481-12-8P 350481-13-9P 350481-14-0P 350481-15-1P

350481-16-2P 350481-17-3P 350481-18-4P 350481-19-5P 350481-20-8P
350481-21-9P 350481-22-0P 350481-23-1P 350481-24-2P 350481-25-3P
350481-26-4P 350481-27-5P 350481-28-6P 350481-29-7P 350481-30-0P
350481-31-1P 350481-32-2P 350481-33-3P 350481-34-4P 350481-35-5P
350481-36-6P 350481-37-7P 350481-38-8P 350481-39-9P 350481-40-2P
350481-41-3P 350481-42-4P 350481-43-5P 350481-44-6P 350481-45-7P
350481-46-8P 350481-47-9P 350481-48-0P 350481-49-1P 350481-50-4P
350481-51-5P 350481-52-6P 350481-53-7P 350481-54-8P 350481-55-9P
350481-56-0P 350481-57-1P 350481-58-2P 350481-59-3P 350481-60-6P
350481-61-7P 350481-62-8P 350481-63-9P 350481-64-0P 350481-65-1P
350481-66-2P 350481-67-3P 350481-68-4P 350481-69-5P 350481-70-8P
350481-71-9P 350481-72-0P 350481-73-1P **350481-74-2P**
**350481-75-3P 350481-76-4P 350481-77-5P**
**350481-78-6P 350481-79-7P 350481-80-0P**
**350481-81-1P 350481-82-2P 350481-83-3P**
**350481-84-4P 350481-85-5P 350481-86-6P**
**350481-87-7P 350481-88-8P 350481-89-9P**
**350481-90-2P 350481-91-3P 350481-92-4P**
**350481-93-5P 350481-94-6P 350481-95-7P**
**350481-96-8P** 350481-99-1P 350482-00-7P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

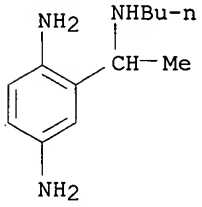
IT 59-51-8, Methionine 62-53-3, Aniline, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, Thiophene-2-carbaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9, 4-Amino-N,N-dimethylaniline 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine 108-00-9, 2-Dimethylamino ethylamine 109-01-3 109-55-7, 3-Dimethylamino propylamine 109-83-1, 2-Methylamino ethanol 109-85-3, 2-Methoxy ethylamine 110-58-7, Pentylamine 110-73-6, 2-Ethylamino-ethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 364-73-8, Benzene, 4-bromo-1-fluoro-2-nitro- 364-74-9, 1,4-Difluoro-2-nitrobenzene 364-76-1 437-83-2, 3-Fluoro-2-methoxy aniline 446-35-5, 1,3-Difluoro-4-nitrobenzene 455-14-1, 4-Trifluoromethyl aniline 498-63-5, Prolinol 500-22-1, Pyridine-3-carbaldehyde 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 579-72-6, 2-Dimethylaminobenzaldehyde 587-04-2, 3-Chlorobenzaldehyde 590-86-3, 3-Methylbutyraldehyde 609-36-9, Proline 616-30-8, 3-Amino-1,2-propane diol 617-45-8, Aspartic acid 617-89-0, Furfurylamine 765-30-0, Cyclopropylamine 872-85-5, Pyridine-4-carbaldehyde 1117-97-1, O,N-Dimethyl-hydroxylamine 1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexane carbaldehyde 2454-37-7, 3-(1-Hydroxyethyl)-aniline 2516-47-4, Aminomethyl cyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0, 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6, 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0, Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6, 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxy aniline 6859-99-0, 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitro benzoic acid 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol

14268-66-7, 3,4-Methylene dioxyaniline 24424-99-5, Di-tert-butyl dicarbonate 25739-59-7 35303-76-5, 4-(2-Aminoethyl)-benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidino benzaldehyde 68621-88-5 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 244104-65-2P 325953-36-4P 350481-97-9P 350481-98-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

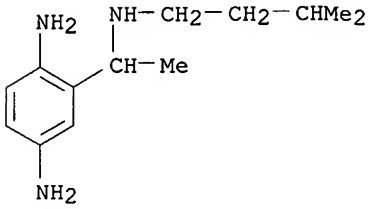
IT **350481-74-2P 350481-75-3P 350481-76-4P**
**350481-77-5P 350481-78-6P 350481-79-7P**
**350481-80-0P 350481-81-1P 350481-82-2P**
**350481-83-3P 350481-84-4P 350481-85-5P**
**350481-86-6P 350481-87-7P 350481-88-8P**
**350481-89-9P 350481-90-2P 350481-91-3P**
**350481-92-4P 350481-93-5P 350481-94-6P**
**350481-95-7P 350481-96-8P**
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

RN 350481-74-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-(butylamino)ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



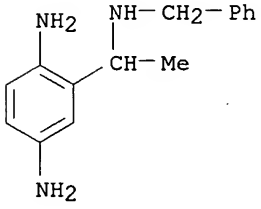

●x HCl

RN 350481-75-3 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-methylbutyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



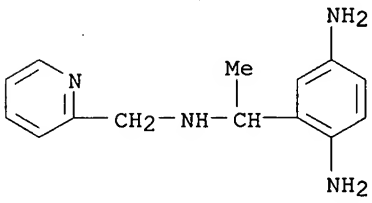
● x HCl

RN 350481-76-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(phenylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



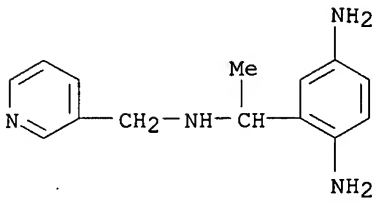
● x HCl

RN 350481-77-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-pyridinylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



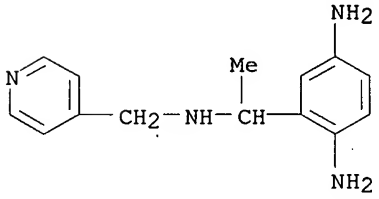
● x HCl

RN 350481-78-6 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-pyridinylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



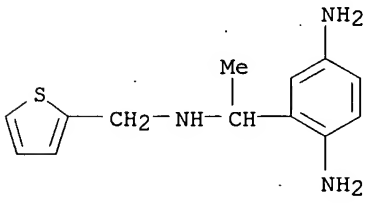
●x HCl

RN 350481-79-7 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-pyridinylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



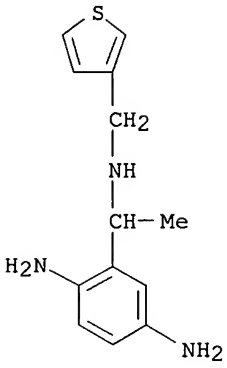
●x HCl

RN 350481-80-0 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-thienylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



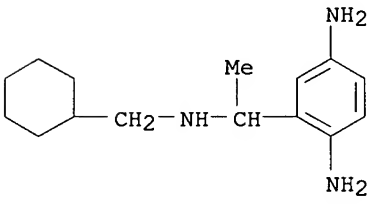
●x HCl

RN 350481-81-1 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-thienylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



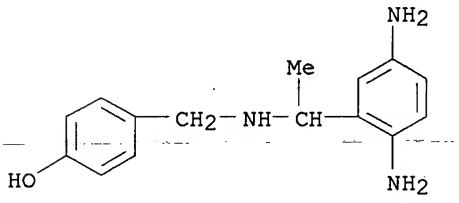
●x HCl

RN 350481-82-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(cyclohexylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



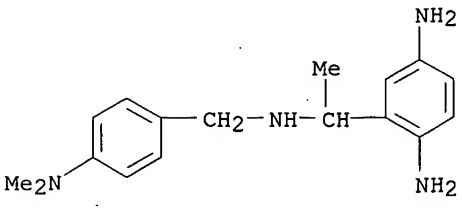
●x HCl

RN 350481-83-3 HCAPLUS
CN Phenol, 4-[[[1-(2,5-diaminophenyl)ethyl]amino]methyl]-, hydrochloride (9CI) (CA INDEX NAME)



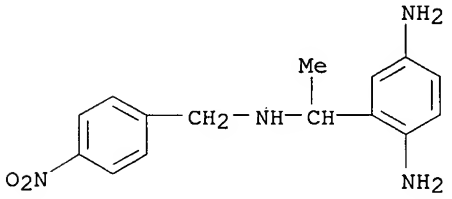
●x HCl

RN 350481-84-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[[[4-(dimethylamino)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



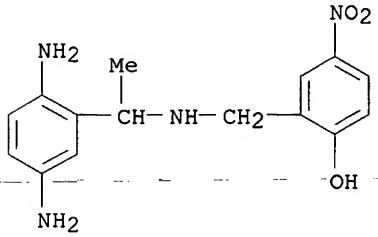
●x HCl

RN 350481-85-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[[(4-nitrophenyl)methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



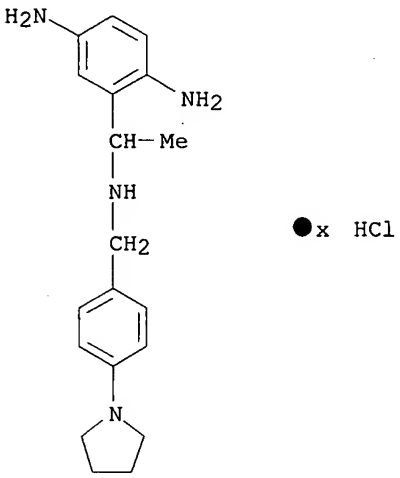
●x HCl

RN 350481-86-6 HCAPLUS
CN Phenol, 2-[[[1-(2,5-diaminophenyl)ethyl]amino]methyl]-4-nitro-, hydrochloride (9CI) (CA INDEX NAME)

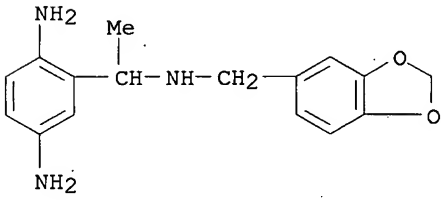


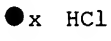
●x HCl

RN 350481-87-7 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[[[4-(1-pyrrolidinyl)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)

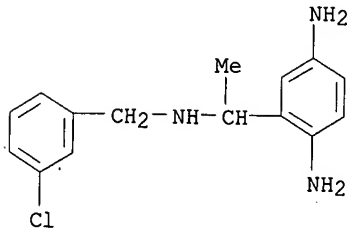


RN 350481-88-8 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(1,3-benzodioxol-5-ylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



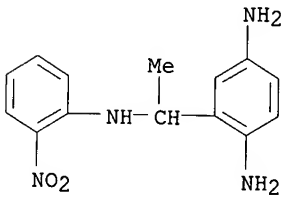


RN 350481-89-9 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[[(3-chlorophenyl)methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



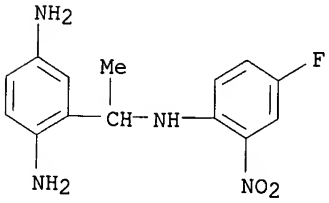
●x HCl

RN 350481-90-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



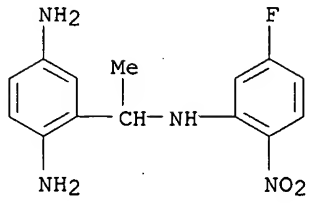
●x HCl

RN 350481-91-3 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



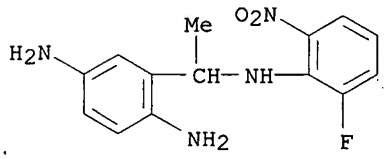
●x HCl

RN 350481-92-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(5-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



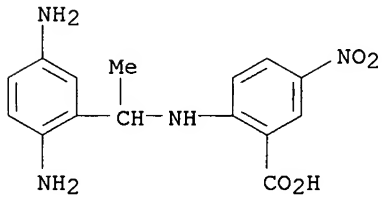
●x HCl

RN 350481-93-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-fluoro-6-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



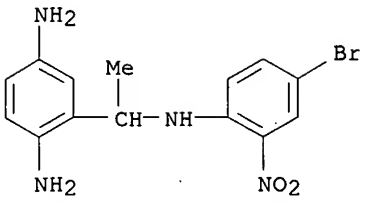
●x HCl

RN 350481-94-6 HCAPLUS
CN Benzoic acid, 2-[[1-(2,5-diaminophenyl)ethyl]amino]-5-nitro-, hydrochloride (9CI) (CA INDEX NAME)



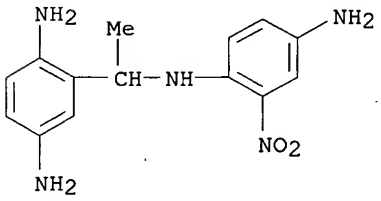
●x HCl

RN 350481-95-7 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-bromo-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-96-8 HCAPLUS
CN 1,4-Benzenediamine, N-[1-(2,5-diaminophenyl)ethyl]-2-nitro-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl